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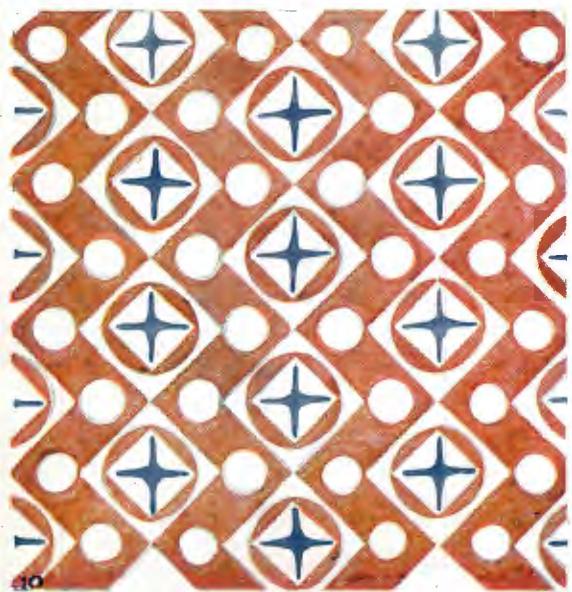
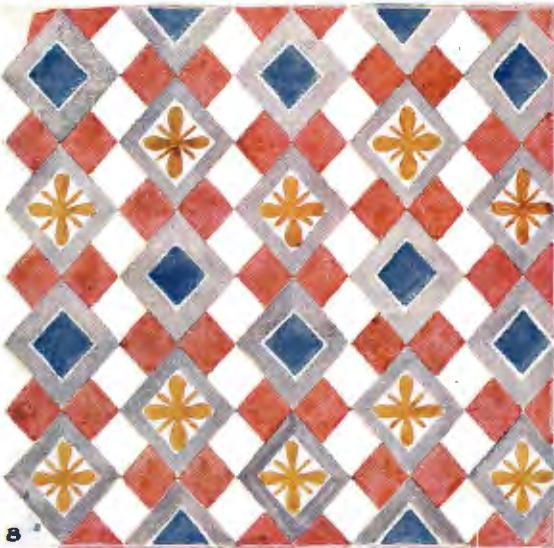
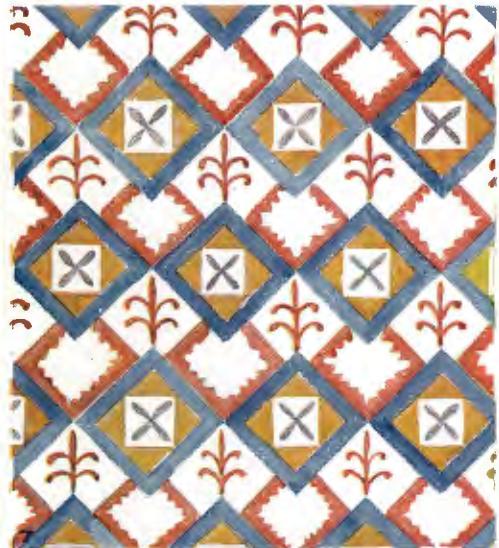
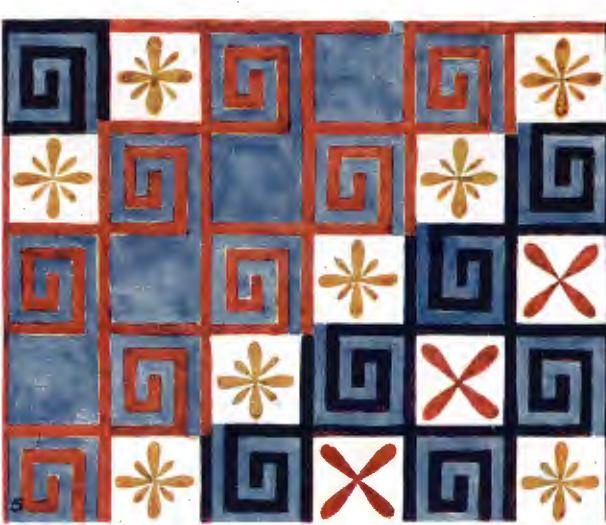
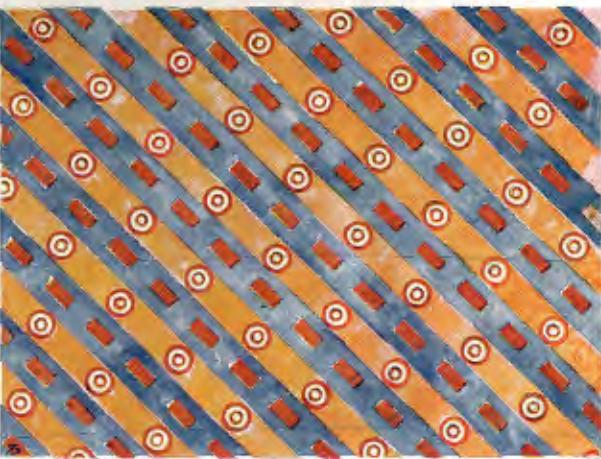
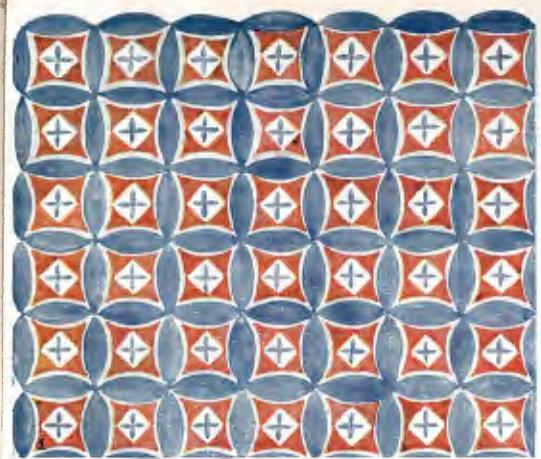
ANTAEOPOLIS

THE TOMBS OF QAU



BY

FLINDERS PETRIE Kt., F.R.S., F.B.A.



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BRITISH SCHOOL OF ARCHAEOLOGY IN EGYPT

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ANTAEOPOLIS

THE TOMBS OF QAU

INTRODUCTION.

1. When considering what place was most likely to yield historical results, I was informed by Mr. Wainwright of the desirability of working at Qau, thirty miles south of Asyut, on the eastern side. There was a flow of early dynastic things coming from there, which should be traced. Accordingly Mr. and Mrs. Brunton, Miss Caton-Thompson, Mr. Starkey and M. Henri Bach worked there in 1922-3, as recorded by them. In that work there was discovered the first great pit of hippopotamus bones and carvings, with some bones of other animals and of man. Other such bones were also found scattered about the tombs. This matter seemed to need clearing up, and so in 1923-4 I went out and started work at Qau with Lieut.-Comm. Wheeler, Mr. Greenlees and Mr. Yeivin. Miss Caton-Thompson was with us, but mostly working on the prehistoric settlement of Hemamieh, and Mrs. Benson helped us for part of the time.

2. In this season we worked out the remains of the Old Kingdom cemetery to the south, which has been published by Mr. Brunton. My own work was mainly the clearance and the survey of the great rock tombs of Qau; Mr. Greenlees made a preliminary copy of the fragmentary wall paintings. The publication of this work has been delayed owing to the precedence of the important Badarian discoveries, and I wished to have a revision of the wall paintings. My plans of the site and tombs are issued in this volume, and some part of the painting, under reserve, as it did not seem well to keep back such important material, pending getting a competent revision made.

3. The questions about the hippopotamus bones were cleared up by finding another great deposit, and also bones wrapped in cloth placed in the tombs. This showed that the Egyptians had collected all such bones as being of the animal sacred to Set, and had put some of them as relics in the tombs. The whole of the bones found were inspected by Dr. Derry in a visit to Qau, and were then

sorted over in detail by Miss Caton-Thompson and myself, leaving the inferior examples behind, but bringing away all the human bones. These are kept at University College, awaiting publication when some light can be thrown on the geologic age of such bones. An expedition by Mr. Sandford in the following year cleared up the age of terraces of the Nile valley (see *Ancient Egypt* 1929, p. 92), but unfortunately no more of the mineralized bones were found. The other animal bones still await a report of a zoologist.

A general view of the whole hill is given in pl. v, 2, and the cliff to the north of it in v, 1.

CHAPTER I

TOMB No. 7. UAHKA A.

4. The tomb of Uahka A (pl. ii) appears to have been the earliest of the great tombs by the following indications; it retains the plan of lesser tombs in having two lateral chambers, each with a retrograde chamber passage below, and there are no minor tombs descending in the great hall; the statue of the owner is placed at the back of the entrance court, so that the stairs ascend above it; and the false door panels are carved in the rock, on either side of the figure. The successive parts to be described are,—the approach, the court, the pillared hall, the great hall, the north hall and annexes.

The Approach, pl. iii, begins at 9 feet over the present plain sloping up to 15 ft. 7 ins., by a rock cutting of a flat causeway, 45 inches wide, with a rock slope 20 inches wide on the east of it. At the end of this, the brickwork has been destroyed for some distance, and only remains above 18 ft. 4 ins. level. A gangway is clear for 34 inches wide: it has been originally over 20 ft. wide, for constructional purposes, and was later narrowed on each side to a mere passage by lining walls, 9 ft. thick. The gangway at 27 ft. 3 ins. over plain, is blocked by a cross-wall 27 inches in thickness,

rising to 31 ft. 10 ins. Above this, the 20 ft. gangway has been narrowed by lining walls to 77 inches, then 43, and lastly 28 inches wide. The additions are marked by directions of shading. The rock has been dressed flat for the ascent, which is continued in one slope up through the courtyard.

5. *The Court* is badly fronted owing to the defective rock, and the designers did not care to sink the floor low enough to make good all over. Along the back is a colonnade on a raised step, 46 ft. 5 to 47 ft. 6 ins. over plain. The lower parts of the fluted columns (of 32 sides) are cut in the rock for a few inches, and must have been built in above that. The centres are 79 to 80 inches apart, diameters 21 inches. The sloping ascent stops at the back of the line of columns, and must have been continued over the statue by a bridge. The ledge at the back for the roof slabs is 123 over the floor, including base (about 7 ins.), column, and architrave. This is at 77 inches below the platform, and as the roof cannot have been so thick, there must have been a step up.

In the axis, against the back wall is the seated figure (pls. ii, iii), without any trace of inscription. It is entirely cut in the rock, and is of fairly good simple work, of course mauled about the face during its long exposure. It is over life size, being 69 inches from sole to crown as seated. It must have been shadowed by the colonnade roof, which was 36 inches over the head; further, the architrave shaded it lower, at 76 inches forward. The bridge over head must only have allowed of a side light. The false door panels cut in the rock (plans pl. xvii) have centres 85 inches from the axis; the western is 55, the eastern 49 inches wide. Below each are traces of an altar, which has been removed. The platform above, at 64 ft. 1 in. level, is riddled with natural fissures, and has traces of socketting which shows that it has been made good by inserted blocks.

6. *The Pillared Hall*, pl. ii, 4, had a massive front wall, and traces of it on the rock suggest that it was 38 inches thick. The east rock wall is fairly good and flat, ± 0.2 inch; the west is rough picked, ± 1 inch. Both the floor and the walls were faced over with plaster. The groove cut in the side walls, to carry the edges of the roof (pl. ii, 5), is at 116-134 inches over the floor; it extends to the back wall, on which it is slightly incised. The hall was thus 116 inches high, the pillars less by the thickness of the architraves. On the eastern

side is a doorway 66 high to a chamber, whence a stairway leads up, and turns to another doorway which opened on the roof (ii, 5). The stair has the traditional slopes at the sides. Westward a small doorway leads to an unfinished rock-chamber. On the native surface, at the side, a water-channel was cut descending to a tank at 12 ins. over the floor; this is cut out to the hall at 13 inches level. We cannot say why this was done, and why no discharge was left straight on to the front platform. The north wall has a portico, which was walled off below by engaged pillars, probably carrying a roof slab. Here, in a faint framing 26 $\frac{1}{2}$ ins. wide, was a single outer door, with its hinge on the east. Further in was the usual double door, which turned, on either hand, into a recess: the hinges are on the north side, and the doors opened outward. A large bolt hole on the west seems to imply a single door, or it may have been a Coptic alteration.

7. *The Great Hall* is finely cut, with true faces, and a roughness of only one or two tenths of an inch. Along the west side are traces of letting in a wall of blocks, probably of fine stone, to receive sculpture. There are changes of level an inch deep, shewing joints at 25, 47, 68, and 109 inches from the north end; the stones had been 21 to 22 inches thick. There are no such traces along the other walls; these have had a fine gesso facing. This insertion of the blocks was an after-thought, as the rock faces are equidistant from the axis to east and west. The northern doorway had double doors opening outward, with hinges to the north. Around the north doorway is a slight framing, projecting one inch, and 23 inches wide. The whole tomb is wrought with fine pick work.

The North Hall has an axial recess for a statue, and opens at each side into a lesser chamber, giving access to a sloping retrograde passage to a tomb chamber. The western passage has a niche near the bottom on the west, and opposite to it a niche which opens out into the lower chamber, half way up. In the chamber is a sarcophagus of hard limestone (pl. ix) much broken up, inscribed for the *hati-o Uahka neb amakh*, or *maotkheru*, "the chief, Uah-ka, devoted to his lord," or "true of voice." A single column of inscription leads down the side over each of the four cross-bar feet. In this tomb was found part of the back of a black granite statue of the prince, with his name and titles (top of pl. iv).

It is evident that this tomb was occupied as a monastery in Coptic times. The massive brick walls flanking the approach have been burrowed out into a set of reconstructed cells, about six or seven feet square. The wall, marked on the plan, to the east of the tomb is a boundary wall, as it runs up above an inaccessible cliff, where it would be useless for defence. It suggests that no. 8 held a rival community, and even the barren rock could not be left in common. The brickwork is certainly late, and not like that of the tomb approaches.

CHAPTER II

TOMB No. 18. UAHKA B.

8. The great tomb of Uahka B (pls. v, 1-3; vii, 1) is the best wrought in the whole necropolis. The successive parts to be described are,—the approach, the court, the portico, the pillared hall, the great hall, the north hall and its annexes, the burial chambers, and the outworks.

The Approach begins at a limestone sill 24 feet over the plain, and the ground level must have been about twenty feet lower when the tomb was made. From the sill it slopes 119 ft. 3 ins. vertical, 500 ft. horizontal, up to the court (pl. xi). The lime for it has been banked up with the stone chips which resulted from excavating the tomb, so as to have a uniform slope. These chips are retained by a stout brick wall on each side, six feet thick at the top, outside of which were piled chips and the large spherical lumps of hardened limestone which abound in the rocks here. Half-way up the slope, the gangway, 137 inches wide, is narrowed by lining walls, 24 to 28 inches thick, leaving it 85 wide. At the top, a large fissure in the rock cuts across the line, and has been dug out by excavators in search of any burial or passage. The bricks used for the walling are 17.3 × 9.0 × 6.2 inches.

9. On reaching the *Court* (pl. vi), there is the hollow for a threshold slab about 103 inches wide, at least 77 inches axially, and 7 inches thick. The thickness could scarcely be more, as the floor of the court has been plastered, and no laid pavement would have been possible, looking at the shallowness of the column bases; nor could other bases have stood on the rock bases, as the mark of the column is on some of them. There must have been a front wall which has entirely dis-

appeared; the distance of this from the bases, and the distance of the stone lining of the side walls, is taken here as equal to the distance of the back wall from the bases. The floor rises about three inches from front to back, and further there are two slight diagonal lines of drainage, to carry off storm water to the sides, and prevent it cutting into the gangway. The natural rock, which is only just flush with the floor in front, rises nineteen feet to the platform behind the court. The detail at the sides of the court will be noticed later.

With regard to the restoration, drawn here in broken line, the conditions are, (1) the diameter of the columns, 25.5 inches by marks on base, 25.2 measured on a fragment, the place of which up the column is unknown. The distance of centres averages 102, space 76.5, intercolumniation 3.00 diameters, which was very seldom exceeded elsewhere. (2) The height is indicated by a recessing of the edge of the back platform, to receive the sides of the roof slabs of the colonnade. A roof was regularly placed at the torus roll, such being the structural position of it in a reed structure. This being fixed, I have followed the proportions of the entablature of similar fluted columns at Deir el Bahri (Naville, *D. B.* xxx), the building nearest in date, erected before the breaking of traditional methods. This results in a column 7½ diameters high, which is taller than any elsewhere. Any other conclusion would involve greater difficulties, however, as it would be needful to assume that the roofing slabs were at the level of the top of the cavetto cornice, and if this were so, there would be no protection against falling from the platform into the court.

At the back of the court, beneath the rock platform, there is excavated a long rock chamber (dotted on plan). It is 57 ft. 3 ins. long, 10 ft. 6 ins. wide, well cut, but with a few inevitable fissures; it was plastered, and shows no trace of divisions; yet it has three doors, which seem to prove that it was subdivided. In the corner of each door is the hollow for the pivot, with a block of black quartzose stone at the bottom, to take the wear. There is a slight pivot hollow, unlike the block in the granite temple of Gizeh which has a flat polished surface. A slightly raised ridge round the pivot quadrant prevented dust falling into the recess.

In the axis of the court is the rock slope, left for the ascent to the platform (xxi, 1). This was entirely

cased with fine limestone, the socket for which is seen all round the rock. There was doubtless a flight of steps, the wide socket for which is at the foot of the slope. Taking the slope of the steps as parallel to the rock slope, the line from the foot of the socket would touch the capital of the column, and reach the platform exactly above the face of the court. This would be the line of the smooth sides of the ascent, in which the steps were recessed down the middle. The connection of the rock slope with the platform above would be by a beam of stone, of 90 inches long, spanning 78 inches, and 30 inches thick.

At the back of the court are two tall recesses, 75 inches wide, and about 205 inches high. These seem to have contained two great steles of fine stone, for the funeral inscriptions. At tomb 7 there are, in similar positions, two recessed false doors cut in the rock, which had an altar below each of them.

10. *The Portico* (pl. vi). This platform of dressed rock had a portico of four pillars with four others behind these. The centres average 95·7 inches apart, instead of 102 as below; the bases average 56 diameter, instead of 50 as below. There seems, therefore, a balance of evidence as to the size of the columns. If the column and architrave were as below, about 270 high, this would allow a level wall to flank the pillared hall to the spring of the arch 271 above the portico, along the broken line in the section. This is a confirmation of the size of the pillars here adopted.

On the plan of larger scale (pl. ix), there are the puzzling details of a drafting of lines on the floor. The column bases are in true line to the columns of the lower court, at the west side, but are closer to the axis by about 20 inches at the east. This pushes the axis of the portico too far west. A space about four feet square has been marked out on the rock floor, which may have been for an altar at which offerings were made while the tomb was closed. Possibly there were steps rising on the south and west sides. The addition was very awkwardly made, as it has obliged the masons to cut away the side of the column base for the north-east corner. The various drafted lines seem to show an attempt at different plans; but the whole is difficult to interpret, without any of the structure remaining, and in view of changes of various periods.

To ascend to the pillared hall, which is a foot higher, a slope was provided, smooth at the sides

and closely ribbed between. The levels rise continuously; from the floor at the back of the court, the portico is 224 inches, 226 on the area each side of the slope, 237 at the front of the hall, 239 at the south pillars; 249 at the back of the hall, and 251 in the doorway. This was to ensure drainage of rain. Two slight hollows pass on each side of the first door of the hall, draining out at the sides, and hence by a shallow gutter between the side pillars of the portico.

11. *Pillared Hall* (v, 3). This had a slight plinth at the front, 13 inches high. The place of the outer door is marked by a deep groove across the passage; the foot of the door would be dropped into this, in order to get the top pivot into its socket; the door was then raised, a flat bearing put under the lower pivot, and sill stones inserted in the groove. Later this was removed, and a door was fitted in with deep side walls, and let in by a long slot sloping down, from the east, to the hinge. Walls were built out from the sides, engaging half of the first pair of pillars, and so forming two small chambers in what became the thickness of the door wall. Small recesses were cut away from the sides of the pillars, with pivot holes, to allow of doors being fixed for the side store-chambers. The details of these chambers are not all defined. Traces of lines remain as marked here, but, where the shading is not outlined, the extent is uncertain. It does not seem that the entrance to the chambers can have been more than twenty inches wide.

The pillars, together with any architrave that rested on them, were 140 high; the grooves in the side walls (v, 3) being at 140 to 141 over the floor, to carry the roof slabs. The thickness of the slabs is doubtful, as the groove slopes at the top, being about sixteen inches high on the face. Probably the roof extended across the whole hall, as the architraves for it need not have been longer than the pillars.

At the east side is a small chamber carefully cut in the rock, with flat sides, and the same length, 167 inches, on east and west: it is 83 high. From this a flight of steps, also hewn in the rock, leads to a doorway which opened on to the roof of the hall. The same plan is seen in tomb 7, and it seems therefore to have had a ceremonial purpose. It is curious how, with such narrow steps, the side slope was still maintained; the only use of it was for sliding heavy weights.

The northern edge of the roof, as shown by the grooves in the walls, comes just under the edge of the arched roofing above the great door. The planes of the sides of the pillared hall are cut very true and smooth. The distances, from axis string, give the west side sloping from 138·3 to 139·6, but contracting at the north end to 138·4. The east wall is on the south 137·8, widening to 139·8 in the middle, and then contracting to 138·6. A very curious feature is a groove in the floor, which starts in the second pillar, and runs into the great hall, ending in a tank in the axis. The groove was closed over with stone slabs let into a seat on each side, so that nothing appeared on the floor when it was perfect. The bottom of the groove is four inches under the floor at the start, or 244 level; it sinks to 236 $\frac{1}{2}$, rises to 240 at the door, and continues thus to the tank, where the floor is 249 level. It seems as if intended for pouring drink offerings into a recess in the pillar, so as to supply the tank in the great hall without opening the doors. The same idea is shown in the recesses for statues in the great hall, and north chamber, in all of which there is a groove in the floor, appearing outside of the door, and passing under it to the inside. Hence offerings could be poured in without unfastening the recesses.

12. *The Great Hall*, pl. v, 5. This is the finest piece of work, a hall without any pillar or support, 52 feet long and 31 feet wide, with slightly arched roof. It is entirely rock hewn, without any serious flaw or irregularity, though much of the roof is seamed with marly veins. The north wall is 624·8, the south 623·6 inches; the east 376·8, the west 377·0 inches. The cause of difference of the north and south walls is that the east wall at the south has not been cut far enough back by one inch. The north door is centred to 0·1 inch in the wall. The heights are at N.N.E. 218·8, N. 218·6, S.S.W. 219·1, S.S.E. 218·9; so there is only an average variation of 0·15 inch, including the difficulty of measuring to the top of the wall face under a sloping roof. Along the middle, the height at E. is 264·2; in middle 267·2, W. 264·6; the ends agree within 0·4 inch, the middle is slightly arched along the length. Such an accuracy as this chamber shows would be creditable in a built structure, but is very surprising in rock cutting.

For surveying this hall, a plumb line was hung in each corner, and the offsets to the walls were

measured at each twenty inches of height, pl. vi. The result is that the N.E. corner varies 0·14 inch on an average from plumb, S.E. 0·22, S.W. 0·18, N.W. 0·30. Thus the general error is only about a fifth of an inch. This shows how well the general accuracy of work was maintained in the whole height of the rock face. The profiles are given at the left edge of the section in pl. vi to a scale of $\frac{1}{60}$ vertical, and $\frac{1}{10}$ for offsets, so the slopes of the face are exaggerated to 5 times the actual amount.

In the western half of the hall, there are three pits on the north and three on the south side. The general outline will be seen in the section. The burial chamber usually slopes down about twenty inches in its length, evidently to make it easier to slide a heavy wooden coffin into place. All of these pits we entirely cleaned out, and then refilled with the large flinty boulders and chips which we found in them. The only objects were portions of the great limestone sarcophagus (viii), which had probably come from elsewhere. The recesses for statues were always closed with two doors, opening outward; when opened they would fill up the wider space before them, and leave a uniform width between the doors equal to the rock recess.

In the N.N.E. corner, at M, is a pit about 70 deep, which extends under the wall, the passage, and the opposite wall up to N. This seems to be analogous to the pit partly under the floor, where the celebrated funeral models were discovered by Mr. Winlock at Thebes. Such a pit we may suitably call the *theka* of the tomb. The idea of the position is that it intercepts the soul in passing out by the passage from the sepulchre, and provides for it, much as the pottery soul-houses were placed by the side of the humble grave. The gangway over it was supported by a slab about 16 inches thick, let in to a seating at the sides, across the pit. The irregular end at N. is due to a large hard nodule coming in the way.

The south door has originally been a double door; but the inner reveal has been cut away entirely on the east side, to allow of using a single door; it was imperfectly removed on the west side. The north doorway has deep grooves cut in the floor, to let in the foot of the doors before raising them into position. There are pivot-holes in all four corners, so there must have been a change of plan, the southern pivot-holes being impracticable for letting in the door pivots.

13. The North Hall and Annexes. This hall has, at the back of it, the axial niche, with a deep rough trench in the floor. This may have been merely due to treasure seekers, as there is no other case of a structure or deposit beneath a statue. Doubtless it was here that the colossal seated figure of Uahka was placed; the back of the head was found in the tomb, cut in black granite, two feet high, see pl. v, 6. At the sides of the hall are niches for statues of others of the family, with the offering troughs below the doors.

In the western room lay the pieces of the great altar of Kem-mu, the wife of Uahka (pl. vii, x), finely cut in hard limestone. It is broken across the middle, and the spout lost. The surface was completely encrusted by bats and was dark brown, but soaking, scraping, and brushing served to clear it and restore its appearance. The name also appears for the wife of one Uahka, on stele 20602 Cairo.

In the eastern chamber (pl. vi) are two pits. The northern one is shewn in clear section. It had two grooves descending to the bottom, as if to let down a sliding door. The chamber has the usual slope for inserting the coffin. The southern pit had a large covering slab, and was of the same form, below, as the northern. From the south side of this pit there branched, at the top, a small sloping passage, only 28 inches wide and 35 high, which led to the sepulchre. This passage was plugged (shaded parallel to the slope); the upper part of the plugging had been extracted, and then the plunderers broke through into the end of the chamber of the tomb below, and extended that chamber below the rest of the plug blocks, and at the side, until they reached the sepulchre. A short horizontal passage and a vertical slit, in which a sliding portcullis slab could be pushed upward and eastward, were passed, and then the chamber reached. In the chamber is a square hollow in the S.W. corner, for the canopic jars, and on the floor are fourteen little recesses about seven inches deep, with traces of ledges for lids; these seem as if intended to hold funeral statuettes, being about two feet long and ten inches wide. There were extensive inscriptions on the chamber, which have been largely destroyed by an attempt, before our visit, to strip them by pasted paper, and cloth.

14. The external detail is mainly concerned with the drainage of storm water away from the tomb, as it is situated between two projections of the

cliffs. Beginning at the front of the lower court, there is a rock wall on the west, with a height of 113 inches. This slopes down steeply on its west side (marked by arrows on the plan) to a water channel, which rises from -20 level opposite the front wall to +30 inches level opposite the back wall of the court. At its north end, this slope is closed by a steeper slope at right angles, rising to a rock wall, with a gap in it (S on plan). This slants down again to the north, meeting another western slope (marked by arrows descending, on plan). This slope finishes off, on reaching the basis of a small chamber (T). The chamber had an entrance on the south, from the flank of the portico, and led to what was probably the chamber of a priest in attendance on the tomb. This region had in Roman times been made into a crematorium, proving a very strong western influence of settlers here. The chamber U was partly cut in the rock, built up in front, and also on the upper parts of the sides and roof. Two long enclosures were provided (xii, 10, 11, 12) with pillars placed on the wall of each, to carry the roof. Both of these enclosures were blackened by smoke, and in the eastern one (xii, 12) were remains of a burnt mummy and coffin. The small recesses, at the south of each of these, were also blackened by smoke. It seems probable that the longer enclosure was for men's cremation, the shorter for women, and the small recesses for infants, in order to save fuel which was scarce. The north doorway led into a chamber, v (xii, 11), entirely cut in the rock. In the northern corners are two cemented beds, slightly raised. On each of these was a pile of human bones, burnt. In one pile were coloured glass figures of Egyptian style from the inlaying of a casket; in the other pile was a small gold necklace with beryl beads. In the crematorium was a thick disc of limestone, dressed with claw tool, weighing $15\frac{3}{4}$ lbs. or 110,000 grains, which would be 20 minae of Phoenician standard. It was partly smoked, and it may have been used for weighing out combustibles for cremating.

The water channel extends farther up the hill, and all the rock over the tomb is sloped away, to discharge rainfall westward to the channel. In later times, the channel became filled with débris. In it lay, near the south end, in ten inches of limestone chips, the altar (pl. v, 4 and xvii) for Abu, the *uab* priest of the leader Uahka, born of

Amu. There is also a prayer for "the intendant of the house, Henen." An iron lance head was found at 40 inches over the channel, and 40 above that was a Roman pavement. Three tomb chambers were cut in the western face, after the channel was filled with 8 or 10 feet of débris.

On the west face of chamber T there are remains of a fresco, the legs and feet of a male figure, of Roman age.

On the east of the portico there is an arrangement of graded slopes (W) similar to that on the west, to shoot off rainfall to a narrow drain which runs down between the square tomb pits. These tomb pits are about twelve feet deep; at the south, where the rock falls away considerably, a brick continuation of the shafts has been built up round them, to nineteen feet in all. The burial chambers running southward from the pits all slope down, to enable the coffins to be slid into place. Nothing was found in these pits which had all been completely cleared by previous workers.

15. The ceiling of the Great Hall of Uahka B was elaborately painted in panels, pl. xi, ten in each direction, each of the hundred being 62×39 inches. Much had fallen away with the stucco, but more remained than in the exposed positions of the portico, and some other tombs. The designs are much more elaborate than the simple matting patterns of the Old Kingdom, and are more varied than the later patterns of the Middle Kingdom which are obviously descended from the Uahka style. The completion of the palmetto and of the fret is far earlier than any examples yet known. It was therefore a matter of importance to copy these designs exactly, and as the mode of doing so may be useful to others, it may be stated in detail. The ceiling was too high to reach it by ladders in the middle (22 feet), and focussing a camera in a dusty room is not easy when vertical. A section of the room was therefore drawn, and a suitable distance of the camera to scale 1:20 being settled, the positions of it, square to successive portions of the ceiling curve, were marked. The camera was focussed to that distance outside in sunshine; then placed at the measured position in the hall, and exposed, with reflected sunlight played over the surface. From these photographs on scale 1:20, my drawings of each pattern were made by close measurement to scale 1:2; then, with a field glass fixed on a stand for examining

the ceiling, the colours were put on the pencil outlines. For publishing these drawings, they are reduced to a scale of 1:6, pl. i. Not a single one of the hundred panels of ceiling is complete, most of the designs could only be found in fragments which had to be patched together. After the drawings were done, Lieut. Wheeler carefully verified them, noting variations, and planning the distribution of patterns in the hundred panels, so far as the condition permitted. Only 69 could be identified, beside 4 doubtful: many of these depend on single fragments remaining. There were probably two or three artists engaged on the ceiling, as the whole area of 1600 square feet would require a long time, each pattern needing to be set out by measure. It need hardly be said that at such a distance from the ground, and over so large an area, it would be impossible to suppose any repainting at a later age. The patterns must be of the xth dynasty.

The distribution of the patterns is shown in the key plan (pl. xi), numbered according to plate i, in which the numbers are on the left hand lower corner of each. Beside the twelve patterns here published, there were variants. No. 1' is planned as 1, but with a red framework and white ground enclosing the blue cross. 2' is as 2, but with a yellow ground to the palmetto, a red band around the balls, and no cross on the yellow lozenge; also a red disc underlies the blue spiral. 5' is as 5, but with a blue star in place of the blue square, and a red star in place of the red cross. It should be said that the star is seldom regular, but is usually reduced to two white notches cutting in on each side of the square; it is here drawn from the most careful examples. 9' is as 9, but the yellow squares have grey (?blue) crosses with a spot in each quarter; also a yellow square inside the centre of each large square. All such differences were probably casual variations by the artist. That there was a connected set of patterns, from which these were copied, is indicated by their relations. Though in no case are three patterns repeated in the same order, and variation was therefore intentional, yet there are 11 instances of a sequence of two patterns, taking the lines across the breadth of the hall. As there is only a chance of 3 or 4 repetitions in the whole quantity, the connection is three times as frequent as it would be by chance. Thus the artist was sometimes led to continuing with the next pattern in

his set,—probably on a roll of papyrus. The key plan squares are marked 1, 10, 91, 100 to show how they may be separately notified. The direction of the patterns varies, sometimes placed at right angles, sometimes diagonally. This is marked on the key by the direction of the numbers, the upright position being as on the colour plate. The key here is as seen from below, looking upward.

The sources of these patterns cannot be traced without much wider knowledge of early design. The Greek equivalents of 2 and 5 obviously hint at a northern source, such as that of the fair Achaeans; the diagonal fret of 6, and the overlapping squares of 7, 8, 9, resemble the mat-work wall designs of the courtyard of the tomb of Timur at Samarkand. An Asiatic source, rather than European or African, seems indicated; yet such designs are not found early in Egypt; were they due to the North Syrian invasion of the viith dynasty?

CHAPTER III

TOMB No. 8. HAMMERED TOMB.

16. This tomb (pls. xiii, xiv) is of the same system of plan as the other large tombs, but the mode of working was entirely different. Other tombs were cut into the rock by pick-work, probably by pointed stone mauls, as on all the quarry working here; this tomb was bruised out by ball hammers, like the granite quarrying at Aswan. The radius of curvature in corners varies from 3 to 6 inches, implying stone balls of half a foot or more, in diameter. The consequence of this mode of cutting away the rock is that all fissures are rounded at the edge, and if they are naturally oblique to the face, a large amount falls away where the rock is left thinner, and the whole surface has large waves; this is seen in the view of the ceiling of the great hall (xiii, 4), and the side of the axial niche (3), where it looks like a water-worn cave, and not as if human labour had attempted a flat surface. On the side of the north door of the great hall, the successive bands of pounding are seen, each band having sunk about four inches before detaching a block and starting again. In the most important part, the axial niche for the statue, the inner corners were dressed with a pick to half an inch radius in the lower part, but higher up and along the ceiling, the corners are hammered out to three inches radius, like the

rest of the tomb. The innermost chambers are the worst, the north and north-west having a radius of six inches at the roof.

The pounding of the rock was completed to the maximum size required, and then plastered over roughly by hand, and finished with a fine gesso face $\frac{1}{4}$ inch thick. There is no trace of any stones having been built against the wall, on the nine inches height of gesso that remains.

A result of this heavy pounding was that a bad fissure, filled with brown marl, broke away through the front wall. This gap was then trimmed, with a flat base and sides, as a permanent window opening (xiii, 1); there is no trace of any mode of closing it. The introduction of this method of granite work is important, as it means that the Uahka family had control of the granite workers, and could bring down a large staff from Aswan to excavate about 42,000 cubic feet, or 3,000 tons of rock. Hence it is probable that they ruled all Upper Egypt. The quality of the rock is very bad, having many fissures filled with marl, which now gape in all directions.

17. *The Approach* (xiii, 2) is shown as low as 4 feet over the present plain, by traces of brick-work; the clear brick walling begins at 11 ft. 9 ins. level. The walls widen out to a pylon form at 54 feet level: above this the rock gangway slopes at 26° to 27° . The lower court is at 63 ft. 10 ins., the portico at 78 ft. 6 ins. level.

Lower Court (xiv). At the back is a chamber cut in the western half. In the middle a rock gangway slopes up, and cuts through the front edge of the portico; it doubtless carried a flight of stone steps (the socket of which remains at the base), and if this coating was about 27 inches thick, the top step would just deliver at the front edge of the portico. There is a considerable batter to the back wall.

Portico and Upper Court (xiii, 1). The portico had four columns, which formed a façade to the Upper Court, with seven feet projection of roof. A slight step led to the door of the court. The centres of the columns were 86 or 89 inches apart. From the portico to the north door of the hall there is a rise of 6 inches, to allow of drainage.

18. *Great Hall*. The entrance door was single, opening inward, with the hinge on the east and a bolt hole on the west. The north door was double, opening outward, with hinges on the north. There were two niches for statues, west and east;

the latter has been expanded inwards to a square chamber, with a similar niche on its east side. Two irregular cuttings in the S.E. corner have been abandoned, and then a sloping passage has been cut in the south side leading to a square chamber (drawn in full line in the section). Three other burial pits have been sunk in the floor of the Great Hall, and the western side has broken through down to the passage which runs below it.

The End Chambers. Here the main chamber has an axial niche for the statue, but only leads at one end to a lateral chamber, by a double door opening outward. This is much broken by rock fissures. From the floor of this chamber, a sloping passage descends to a square burial chamber; in the floor of this, a square hole probably contained canopic jars, and was covered with a recessed slab.

have kept to the simpler and earlier forms. The smaller tombs are on pls. xv, xvi.

The essential peculiarity of this series is the retrograde passage to the sepulchre. The simplest example is no. 10 (xvi), where there is one chamber, with a retrograde sloping passage at each side. The western sepulchre has not been cut, and the upper chamber is left unfinished along the back, the edges and corners having five to ten inches excess left uncut. The forerunner of the more complex plan is no. 2 (xvi); here the open court with porch at the end, the great hall, the north hall, and the axial niche for the statue, are all complete. The north hall has two secondary niches, or possibly unfinished doorways to lateral chambers. The sepulchre has no sarcophagus, but a pit in the floor for the wooden coffin, widened on the eastern side for the canopic jars. The passage, curiously, has been narrowed from 55×62 high, to 27×29 ins., by the insertion of a lining to the sides and roof. The larger hole was needful for excavating work below; the narrowing must have been made before the burial, or they would have inserted an entire plug. The narrow size of 29 inches shows that only a wooden coffin could have been brought in.

21. The next stage is that of the great tombs; no. 7, Uahka A, seems to be the earliest (iii). Here the two retrograde passages and sepulchres are completed, proceeding from separate lateral chambers. The aggrandizement by a long approach, false doors and altars in the open court, an upper hall of pillars, with a stairway approach to the roof, and a much larger scale of construction, seem to mark a large increase in the power of the ruler.

Probably the next in order is no. 18, Uahka B (vi), which has the same design, but varied and still more sumptuous. The pomp of the ruler is shown by the complex arrangements. There are three niches for statues in the north hall, two more in the great hall, a great *theka* for funerary models, over a dozen cavities in the floor of the sepulchre, for his statuettes, six tombs of the family in the great hall, outside chambers for priests, and burials of ten of the household by the front court. The splendour of the immense rock hall, covered with finely painted scenes on 2,500 sq. feet, and 1,600 sq. feet of brilliant patterns on the roof, shews a luxury comparable with any period of the history, and far finer in detail than the works of the later times.

CHAPTER IV

TOMB No. 16, SEBEKHETEP, AND LESSER TOMBS.

19. This tomb (pl. xv) is inferior to the three great tombs, but yet much outside the class of small tombs, and was doubtless for one of the Uahka family. There is no formal approach. The outer court has been blocked up on both sides with a thick bank of brickwork, perhaps because of the insecure state of the rock sides.

The door to the great hall has been narrowed by built stone piers. The great hall is very nearly the size of the greatest one, Uahka B, and is fairly well cut, only differing two inches in opposite dimensions. The inner chambers are like those of Uahka B, except that the axial recess is alone, and there is not a second vertical pit in the east chamber. It seems as if it were copied from Uahka, but yet with inferior work and care in the lay-out, which has a considerable skew in the back hall. There are no secondary niches for statues.

The sarcophagus (ix) in the lower chamber has been broken anciently, and joined by a dove-tail; it has, beneath, the usual four cross-bars in relief. The name Sebekhetep was recovered from the painted inscription. The rock is very bad here, having many wide and deep fissures.

20. We may now review the whole series of tombs of all sizes, taking them in the order of development of the type; this is not necessarily the exact sequence of date, for in some cases persons may

This may well have crippled the means for such magnificence, and the resort to hammer-work and plaster in no. 8 (xiv) may be a cheaper substitute. Here there was only one lateral chamber, for a retrograde passage and sepulchre; the provision for a consort seems to have been made by a branch from the great hall, with a niche for a statue and a retrograde passage and sepulchre. Three family pit tombs are in the great hall, and another in a lateral branch from the upper court. The portico was lessened, the ascent left solid and not bridged, and everywhere the work was slighter, and not carried out far enough to secure completion.

22. Feebler still is the execution of no. 16 (xv), of Sebekhetep, without any approach or lower court; the outer court is stayed up with brick-work, the inner chambers askew; yet there is an attempt to copy the great Uahka in the positions of the sepulchres, the retrograde passage, and the size of the great hall. No trace of plastering or painting was found.

After this, comes in the old Egyptian plan of a vertical pit and chamber for the main burial. In no. 15 (xvi), the court and porch are retained, the axial niche is enlarged to hold the pit, yet the lateral chamber is added, and a retrograde passage from it to the sepulchre.

Still more abbreviation was made in no. 17 (xv), where a small cell had two passages branching opposite ways in the floor; one ran retrograde to a sepulchre with a pit in the floor like no. 2, enlarged on one side for the furniture; the other ran north to a small chamber, the work in which was curtailed by its breaking through to the S.W. corner of the great hall of no. 16.

After these, the retrograde passage was omitted. No. 3 (xvi) may have been intended for either type; it is unfinished, and has no sepulchre. No. 5 has an external pit, which runs askew to a sepulchre under the court, with two pit loculi for burials. The lower part of the inner chamber was left unfinished, and was, later, cut away by long-stroke dressing, probably to adapt it for a Roman burial. The inside of the porch arch has also been re-trimmed by long-stroke to make it tidy according to later taste. No. 9 has a pit in the court before the niche, descending to a sepulchre under the niche, with loculus pit in it and a recess for furniture, as in 2 and 17. The most divergent example is no. 12 (xv); it has a brick entrance passage built on. What was in no. 15 the corner

chamber has here become a turn at right angles. A long pit leads to the sepulchre, in the floor of which is a long loculus, with a recess at the end for the furniture. This tomb has thus some remaining features of the system, altered and degraded, and is certainly the latest in development here. After this, there was no tomb work till Roman times, when an old rough unfinished chamber no. 11 had an extension added, to hold two Roman loculi. Many shallow Roman pits, covered with cross slabs of stone, are cut in the hill, and the crematorium at no. 18 seems to show that a foreign population were settled here.

23. Very little was left of the contents of these tombs, after the ancient destruction (which was mostly in the xviiith dynasty according to the pottery). The two expeditions that had preceded us remain unpublished. In no. 2 we found fragments of a black granite altar of offerings to Osiris with the name apparently of Mery-Sekhmet. In no. 7, Uahka A, only portions of the sarcophagus remained, see pl. ix, and part of the back of a statue, pl. iv. There were traces of pattern in the porch, like 1, 12. In no. 9 were fragments of a canopic jar of polished red pottery, with signs in relief (xiii, 6); also a small altar of late date. In no. 10 were more fragments of red polished canopic jars, and an altar broken in two. In the court of no. 15 was part of an inscribed door jamb, but nothing in the tomb. In no. 16, Sebekhetep, lay a brush for sweeping, and some fragments of models; a carnelian drop bead, and some small beads.

In no. 18, Uahka B, all the pits were entirely cleared by us. The pieces of the sarcophagus, inscribed, are all photographed here, pl. viii: the back of the colossal black granite figure is in v, 6; the large altar of the wife, Kemmu, is in vii, x. Also we found the arm, and parts of the face, of a black granite statue, which was brought away, and portions of two small wooden figures. A few beads of amethyst and lazuli were found. The great bulk of the fragments of statues had all been removed by the Italian expedition, and these lie in piles in glass cases in Turin, not sorted or published. Soon after that expedition I bought in Cairo a perfect canopic jar of red polished pottery, with arms in relief and inscription for Uahka. This and the fragments which we found are in University College.

There were also found, scattered in the tombs, various bones of hippopotamus, mineralized, like

those in the two large deposits which we discovered. Some of these bones were still wrapped in cloth, showing the attention which had been paid to them. They were, no doubt, looked on as relics of the animal there sacred to Set.

In the funeral vault of Uahka B, there were traces of long inscriptions. A previous expedition had attempted to remove them with glue and cloth and had horribly failed, leaving material sticking in patches on the walls, partly cut about with a knife. Some similar attempt had been made on a portion of the painting in the Great Hall.

A statuette of limestone of a woman named Uah-ka doubtless came from here, and was in the hands of a Cairo dealer in 1913. See Mace and Winlock, *Tomb of Seneb-tisi*, p. 45 note 2.

On comparing the steles bearing Uahka names with those certainly of the xiith dynasty, it is seen that the flat top, and the border of white and various colours alternating, are only of the xiith. On the other hand the Uahka steles have a torus-roll framing and cornice which is rare in the xiith dynasty.

CHAPTER V

DIMENSIONS OF THE TOMBS.

24. The general forms of the tombs, and such measurements as are needed for realising their appearance, have already been described. Beside these there are matters to be noticed in the workmanship, when closely examined: these follow in the same order as in the previous description.

In tomb 7, Uahka A, the panelled false-door recesses (pl. xvii) are not alike; the western has three plane surfaces each side of the niche, the eastern has only two such planes and then a curved hollow at each side. Both are set out by a rather small palm unit. The edges are so much rounded, and so sloping, that the measurement was only taken in whole inches.

W. widths	palms	E. widths	palms
6 ins.	2	6 ins.	2
17	6	22	8
23	8	41	14
55	20	57	20
101	36	126	44

mean palm 2.85, digit .715.

The pillared hall is 12×17 cubits, on a cubit of 20.70. The subdivisions by the pillars seem modified from even amounts; the middle passage is 55.6 wide, the sides are 64, and the pillars 32×21 inches. The great hall is 13×16 cubits, on a cubit of 20.63; the N. and S. walls are skew to the axis, so that the N.W. diagonal is 1.8 longer than the other. The back hall is 6×10 cubits. The levels rise up to the back; front court 557 inches over plain, pillar portico 569-570, platform 773, pillared hall 778 at back, great hall 779-780, back hall 783, axial recess 796-800.

25. In tomb 18, Uahka B, the rock bases of columns in the court vary from 49 to 51 inches across, and vary an inch in alignment. The whole square of bases is N. $557\frac{1}{2}$, S. 556; E. 459, W. $462\frac{1}{2}$ inches: subtracting one diameter from these, the distance between centres is $410.8 \div 4$, 102.7, and $506.8 \div 5$, 101.4, roughly 5 cubits of 20.54, 20.28. The breadth of the court is 682; this is divided approximately as 3 cubits for colonnade widths, 25 short cubits between column centres, thus enabling the bases to exceed 2 cubits, and make the total 33 cubits of 20.67 ins. The recesses in the north wall for the great steles are 75 and 76 wide.

The portico columns, centre to centre, are 101, $101\frac{1}{2}$ N.-S., 95.5 E.-W. The hall of pillars is 277 wide, divided into $4\frac{1}{2}$ cubits axial passage, $3\frac{1}{2}$ c. pillars, $5\frac{1}{2}$ c. side aisles, making $13\frac{1}{2}$ c. of 20.52 ins. The nave and pillars together give an average of 20.58 cubit. Judging from the elaboration of paintings on walls and ceiling, the great hall was evidently regarded as the supreme piece of work. Not finding discrepancies by ordinary measurement, I measured it off with rods 160 ins. long, to find the errors. The N. wall is 624.8, with 0.1 excentricity of door; the S. wall 623.6, door 1.0 excent. The E. wall is 376.8, recess 0.5 excent.; the W. wall 377.0, recess 0.1 excent. Height of wall 218.85 varying 218.6 to 219.1, height to vertex 264.4, or 267.2 in centre. The sides seem to be based on a long cubit, of 20.81 or 20.94, 30 \times 18 cubits. The cutting of the rock is very carefully done; I gauged it in each corner, as is shown by the divergences from straight lines in the diagram (pl. vi). The upper part is the more regular, doubtless due to excavating that first, and then working downward. The slopes in the diagram are increased $\times 5$, the heights being 1:50, and the offsets 1:10. The actual variation of each

wall, from a mean straight line passing through it, is N.N.E. 0·1 inch, E.N.E. 0·18, E.S.E. 0·20, S.S.E. 0·24, S.S.W. 0·16, W.S.W. 0·20, W.N.W. 0·20, N.N.W. 0·40. Mean of all, 0·21 inch. The tomb of Khnumhetep at Beni Hasan is much like this in accuracy, but that of Amenemhat is far less accurate. The sizes of fourteen doorway and recess widths agree with the digit and palm moderately well, with an average variation of $\frac{1}{100}$, the unit being 2·905, .726 ins. This is rather short for the true palm, being $\frac{1}{10}$ of the diagonal of 20·54 cubit.

26. The tomb with hammered work, No. 8, is roughly in whole numbers of cubits, averaging 20·53, but with a mean error of .14 on the cubit. Tomb 16 is poorly cut, on a cubit averaging 20·59, mean error .02. The small tombs are irregularly cut; 2 and 3 agree well enough with the 20·6 cubit. Others are quite insoluble by that, 5 and 9 agree with 10·68 ins., m.d. .08, foot; 15 with 13·0 ins., m.d. .16, foot; and 4 with a cubit of 22·0 ins. These might be the 10·7 vitasti of Persia (the Jewish foot); the well known 13·2 foot, found as low as 13·0 at Silbury and 13·04 in France; and the cubit of double the Phoenician foot, 22·14. Other examples of these values in Egypt are already known on the cubit rods, and in the thickness of the courses of the Great Pyramid (see *Weights and Measures*).

CHAPTER VI

HISTORICAL CONCLUSIONS.

27. The first question in dealing with the tombs of Qau concerns their period. There are not any names of kings recorded and the burials have been so entirely destroyed that there are no objects distinctive of any period. The evidence therefore must rest upon the private names, six of which are known here. Abu, son of Amuda, was the *uab* priest of the prince Uahka, on the altar here published (xvii); the same name, Abu, is stated for the tomb 8 here (Steindorff in *J.E.A.* 1914, 217). Uahka was the name of the two great princes of tombs 7 and 18. Kemmu is named on the altar of the wife of Uahka B. Sebekhetep is named on the sarcophagus of tomb 16. Senusert was the son of prince Uahka B. The only distinctive name here is that of Uahka, which is unknown in the Old Kingdom, and only occurs once in the

xiith dynasty, as being then in a previous generation. As there are thirty-two steles known with the name Uahka, it clearly belongs to a class apart from both the Old Kingdom and the xiith dynasty. On setting out all the Old Kingdom names associated with Uahka (in Miss Murray's *Index*), and all the xiith dynasty names (*Ancient Egypt* 1924, 80-82), it is seen that the 197 names are equally linked to the two periods, and therefore came between the viith and xiith dynasties.

28. The details of these names are set out in *Ancient Egypt* 1924, 76-83, to which five more steles may be added with Uahka (Cairo Catalogue, 20632, 636, 657, 658, 669). The name of one of the Khety kings of the ixth dynasty, probably the third Khety, being Uah-ka-ra, shows the probable origin of the name Uahka in the ixth dynasty; the large number of scarabs with *uah-ka-nefer* as a pious epithet ("may the good *ka* flourish"), dated by names before the xiith dynasty, agree with the royal dating. The evidence for the Uahka tombs being of the ixth or xth dynasty seems conclusive.

That this family was connected with the xiith dynasty is indicated by the son of Uahka B bearing the name of Senusert. This name does not imply a date in the xiith dynasty, for it is also found on a stele with a man named Merykara after Khety II; as that family was detested, it is very unlikely that a man would be called after one of those kings in later times. The family of the xiith dynasty is almost certainly from the all-powerful vezier Amenemhat, who appears as the controller of the country under Mentuhetep IV, about twelve years before the reign of Amenemhat I. As that king had reigned thirty years when he died in old age, he might be of active age for a vezier some forty years before his end. He would have been born early in the long reign of Mentuhetep III, who built the Deir el Bahri temple; and was a youth when that king stretched the power of the xith dynasty northward to control Qau and crush the remains of the xth dynasty of Herakleopolis. It is not improbable that the heiress of the Qau princes was married to the vezier as part of the settlement of the country, for he became the virtual ruler by the second year of the next Theban king. Thus the independent rule of the xith dynasty only covered the earlier years of Amenemhat I who succeeded them, and he might have been married to the heiress of Qau,

and have called her son by the family name of Senusert. (See *Ancient Egypt* 1929, 82.)

29. That the Senusert-Amenemhat family was of Sudani origin, is stated in the Egyptian prophecy that "A king shall come from the south whose name is Ameny, son of a Nubian woman." (J.E.A. 1914, 105.)

This accords with the fact that the black granite sphinxes from El Kab (removed to Tanis, *Ann. Serv.* 1917), and the black granite statues of Bubastis, so much resemble the kings of the xiith dynasty, and also have close connection with the Galla type of Abyssinia. Modern skull measurements of the Tigre people there, have led already to the conclusion that "there is a close relationship between the Tigre skulls and middle dynastic Egyptian types."

So far, these indications render the descent of the Senusert family from southern invaders of Qau the most likely course of the history. A further token is seen in their work at Qau, where tomb 8 has been wrought by granite workers from Aswan, indicating the control of the upper country; above all, the plans of the great tombs at Qau are on the pattern of the later Nubian temples, neither class having any relation to the Egyptian plans of tomb or temple (pl. xviii). In the plans the essential features are the same;—the pillared hall, partly cut into the rock and partly built on; the great rock-cut hall, which required pillars in the soft Nubian sandstone, but was a free space in the limestone; the small hall across the axis; the three recesses for statues at the back of it; the two side chambers opening from the ends of this hall,—the whole of these features mark the Qau tombs as being of Nubian design.

Thus from the family name, the prophecy, the likeness of type, and the constructions, it would appear that a Galla invasion of the south led to a family of princes ruling at Qau, who entered into the wider scope of the xith dynasty Thebans and rapidly supplanted them. The heiress by marriage with Amenemhat founded the great xiith dynasty. Amenemhat I is reckoned by Manetho as being of the xith dynasty, and the xiith is not stated to begin until his son Senusert I succeeds, bearing the family name which appears at Qau.

30. That the importance of this district began long before the xth dynasty is seen by the diorite altar, pl. xvii. The distribution of the offerings suggests a date of the iind or iiird dynasty.

The name Herui-nekht refers to the co-equal Horus and Set, often represented as two falcons on scarabs of this district. The block was found about ten feet down in the side of a saqqieh pit at the southern village. The finder fetched me, and I bought it for five pounds, and immediately took a full-sized copy to secure its publication, well knowing that it would be wanted at the Cairo Museum. The vendor was a tenant, and the landlord squabbled about the money, and foolishly denounced the tenant to the police, who came down on the matter and seized the stone regardless of its having been sold. So they had the task of taking the block of four hundred-weights to Cairo. The region where it was found, adjoining the old temple site, which is now washed away by the Nile, might well repay complete excavation, but this could only be done by Government as it would need expropriation.

CHAPTER VII

TOMB PAINTING OF UAHKA B.

31. A selection of some of the more important parts of the paintings in the tomb of Uahka B is issued here for reference, pending a more precise copying which we may hope will be carried out in future.

XXIII. On the east wall of the western terminal chamber the inscription of the most historical value was found, showing that the name Senusert belonged to the Uahka family, thus implying that this family were ancestors of the xiith dynasty, as described in sect. 28. The whole of the interior of this chamber was deeply encrusted by bats. In order to cleanse it a thick pad of cotton stuff, dripping with water, was placed on a box lid, and held up against the wall by a diagonal pole on the floor. Such a pad would soften all the dirt in a couple of hours; then with a new, straight, dinner-knife, the dirt could be scraped off without injuring the surface. A washing down then left the paint clear enough to be traced. In order to light these interiors, half a dozen biscuit-tin lids were fixed on a large box lid, and made an efficient reflector. One such was in the sunshine outside, a second in the axis of the last hall, and a third picked up the light in the chamber, and shone on any part of the wall, or a white sheet was used in place of the third reflector.

XXIV. In the Great Hall, on the north end of the east wall, there are figures of dancers and tumblers, high up. Though much damaged the tumblers are so unusual that they should be recorded.

XXV. The upper scene of bird-catching among bushes shows the naturalistic style of the painting here; it is on the north wall of the same chamber as xxiii. The lower scene is of two Nile figures(?) supporting a deep tray, covered with offerings, and the captured birds are on the left side; it is on the west wall of the Great Hall.

XXVI-VII. Along the top is the left half of a great lintel inscription in the Great Hall. In the middle is a scene of the *kher heb* making a divine offering to Hathor of Denderah for Uahka. This begins a long scene on the west part of the south wall in the Great Hall. Next is the portion in the upper part of xxvii. Then following, after 24 inches lost, is the lower part of xxvi. This shows a long list of offerers to various gods for Uahka. The localities of these gods do not follow in geographical order, hence this does not imply a rule over the Delta by naming Ptah of Memphis or Osiris of Daddu. The places in Upper Egypt are between Abydos and Siut. The lower part of the plate is from the west wall of the chamber of xxiii. The altar of offering seems to be bordered above the objects by a band representing the opposite edge of the altar. This implies that the objects lie flat on the altar. The female figure is of a very different type from the others in this tomb. It is like the upper part of a limestone figure in the Carnarvon Collection (*Bull. Metrop. Mus.* New York, xxii, 2). There does not seem any reason for assigning that figure to the ivth dynasty; on comparing it with heads of the xith it may well belong to that age.

XXVIII. This group of *onkh* and *uas*, vivified, and holding knives, is remarkable. It is on the west of the Great Hall.

32. In all this work, many fragments of which are exquisitely detailed, there is an entirely fresh departure, after the decadent roughness of the Old Kingdom, such as at Meir. The work here is finer than in any painting of the xiith dynasty, and is the starting point for the new style. It marks the great importance artistically of the Uahka family, and we do not know of any equivalent work elsewhere that can have given rise to this. The question of new ideas and ritual

appearing in this tomb requires a complete census of scenes in the Old Kingdom, before the comparison could be made. The statuary, all broken up, had unhappily been nearly all removed before our work, and the chips are stacked unsorted in cases at Turin. The style of it is unlike any earlier work.

33. On xxvi the many portions of squaring are worth notice. They may not have extended over the whole, but were, perhaps, drawn only where needed as guides. Obviously the straight-lined signs were placed on the lines if suitable. The accuracy of the dividing is generally good; the average error (excepting some wide departures) is usually less than a hundredth of an inch, and in the worst a thirtieth, including errors of copying and inking. The unit size of the squares is 1·123 inches horizontal, 1·120 and 1·126 vertical. This is not clearly connected with Egyptian measures, yet an accurately divided scale is not likely to have been made *de novo*. If we refer to the cubit, the only meaning would be 1½ digits of a cubit of 20·97, which even exceeds that of the dimensions of the Great Hall, 20·81 or 20·94. The unit of the *kherp* on the cubit rods is on the 15th digit, or between 14 and 16. This equals the Punic foot of 11·1, or in the highest values 11·16, but this hardly accounts for 11·23 inches. The unit squares are on a canon of 13 in the height of the whole figure.

CHAPTER VIII

LATER REMAINS.

34. The plan of the site (pl. xi) was triangulated on the tomb doorways, and on six marks on the cliffs. I then sketched in the cliff outlines, going up and down the gullies, which are here marked by arrows. The height of the front court of tomb 18 was 143 feet over the plain, and the whole height of the hill nearly 400 feet. The numbers refer to the tombs; Q marks the quarries; the full black is for brick construction. The building near 12 is probably late. The "pylon" of the extreme east is the entrance to the tomb of Nubkhos (see pl. xvii), of which fragments were recovered, pl. iv. These sculptures are of careful and delicate work, and lay in the rock chamber with some alabaster vases which are probably of the xviith dynasty, now in University College.

35. Between tombs 7 and 8 is a vertical cliff face. In a recess is a natural fissure, with a brick enclosure across it; the view is in pl. xii, 9, with a plan drawn beneath it. A steep little flight of steps leads up to the edge of the wall. This suggests that a serpent lived in the recess, and was regarded as sacred; the steps would serve for children to go and feed it. In like manner the sacred serpent at Epidauros had a deep stone trench provided around its covered cell, so that it could proceed out to take offerings without being able to escape; and the whole had a circular roof over it, known as the *tholos*.

36. From the cemetery came a remarkable example of the incised pottery dish of the xiith dynasty, pl. xxi, 4. The frequent subject of a fish was here mistaken, and a tail placed at each end of it. It may have been thought to be a boat, and triangular oars provided. Another remarkable bowl is in green glaze, of the beginning of the xviiith dynasty, xxi, 5, 6.

Also from the cemetery are the glass cups and vases of late Roman age, in pl. xii, 1 to 8.

37. A demotic papyrus, of the end of the reign of Augustus, has been studied by Sir Herbert Thompson, whose report is as follows.

Demotic papyrus from Qau. "The ends of the lines are lost and the lower part is fragmentary. The second fragment, though more closely written, seems to be in the same handwriting, and may well be part of the foot of the first fragment.

The latter consists of three clauses, the first containing 10 lines, the tenth line being a short one. This is followed by 11 lines, the eleventh having been a short one and now entirely lost. The third clause (if the second fragment be part of it) probably extended to 13 lines.

The contents of the texts seem to be a *record* of money loans,—not the original documents,—and are dated in the 40th year of the Emperor Augustus (A.D. 10–11). The first clause begins "Copy of the writing which is written below." It is dated Feb. 23 A.D. 11. It records a loan of 20 staters and seems to be secured on a house, the loan being repayable in a year's time viz. on Feb. 24 A.D. 12. The second clause begins "Phamenoth day ... another writing." The parties are different and the details are more fragmentary. The sum dealt with amounts to 17 staters. In l. 17 there is an unexplained reference to the "port of Tema," doubtless the modern village of that

name on the river, followed by the words "without excess of (probably = extra charge for) freight," but I can trace no reference to corn, or other cargo, which may have been offered as security for a loan. The 3rd clause seems to record a contract; one of the parties was probably named "Premanti the son of Premanti, his mother being Ta...." i.e. the man of Anti (?), the double deity which gave its name to Antaeopolis. But I am unable to make out the nature of the document."

38. The quarries and the rock structure of this district are well worth study. In pl. xix, 1, is a view looking eastward from the tomb region, with a great scarp face. In the hills beyond there are very extensive underground quarries, two views of which are in xix, 2, 3. In one of these quarries is the crude painting of the Romanized local deity Antaos, published in *Zeits. Aegypt.* 1894, 1. The characteristic working of the rock faces in the xth dynasty is by flaking with stone mauls, as in xix, 4; while the working in Roman times is by long pick strokes as in xix, 5. The contrast of such modes of working is shewn by an ancient quarry, attacked for stone in Roman times, pl. xx, 1.

Of the later age is quarrying of columns, leaving the round groove visible, in xx, 2; the same in the distance, xx, 3, has in the foreground the trenching in the rock for cutting away two large blocks. In the underground quarries are seen the steps left for reaching the roof, xx, 4; all the work was begun at the roof, and thence cut downward. On the roof the red lines were drawn, xx, 5, to show how far the work had advanced, before a fresh section was started.

39. On looking at the great valley east of the tombs, xix, 1, there was a puzzle how the lower strata were in unbroken horizontal position, while above them the sides of the valley, xxii, 1, tilted inward considerably. An explanation of this was seen on a small scale, xxii, 3, where poor limestone, full of fissures, allowed of seepage of water through it, though capped by hard limestone. The denudation valley of the surface collected the water, which sank into a rotten stratum, and dissolved it out, so letting down the hard rock above till it reached the fine hard stratum below, as in xxii, 1. We must evidently allow for the disappearance of strata by gradual seepage, without forming actual caverns, if the rock is too weak to hold up.

40. For lowering the great blocks from the quarries a gully of loose chip was prepared, so that the blocks could be rolled down without breaking; such a gully or lap is seen in the middle of pl. xxii, 2.

In the north-west of the tombs there were also great quarries; some at a low level have open mouths, xxii, 4; others at a higher level, in the same view, have a great brick causeway built sloping down to the plain. This is formed by two parallel walls of bricks stamped with the cartouche of Amenhetep III, with loose mud filling placed

between them. The bricks are $14\cdot5$ to $16 \times 7\cdot0$ $\times 4\cdot5$ inches.

In some cases it was thought to be easier to get large slabs by cutting deep grooves vertically, as in xxi, 3; such would be best for door jambs, as the bed would be horizontal.

Along the cliff face toward Hemamieh are lines of openings of hermits' cells, xxi, 2, at about eighty feet from the ground. The access to these is not obvious, and the amount of open air exposure would make the preservation of any manuscripts unlikely.

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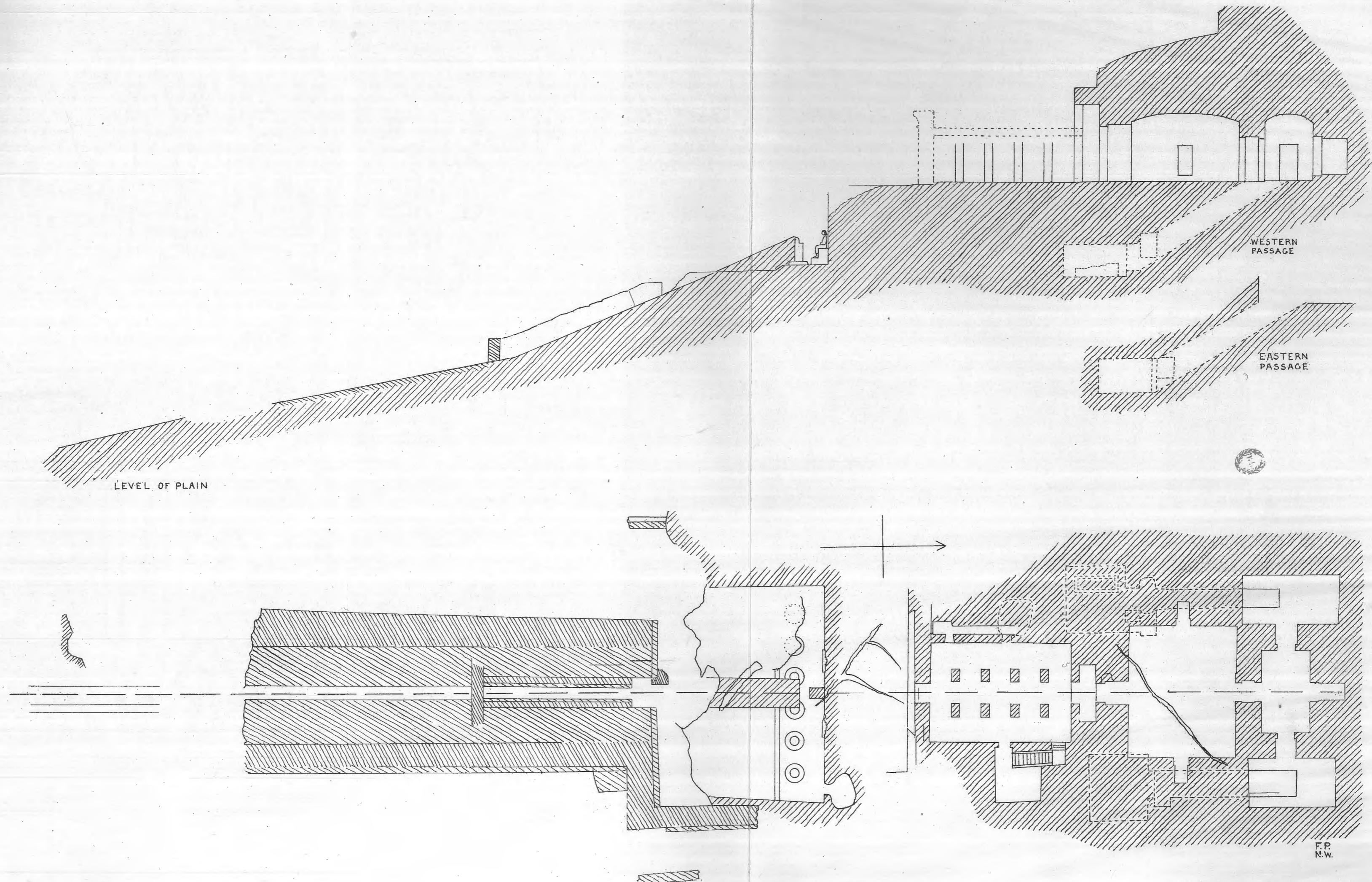
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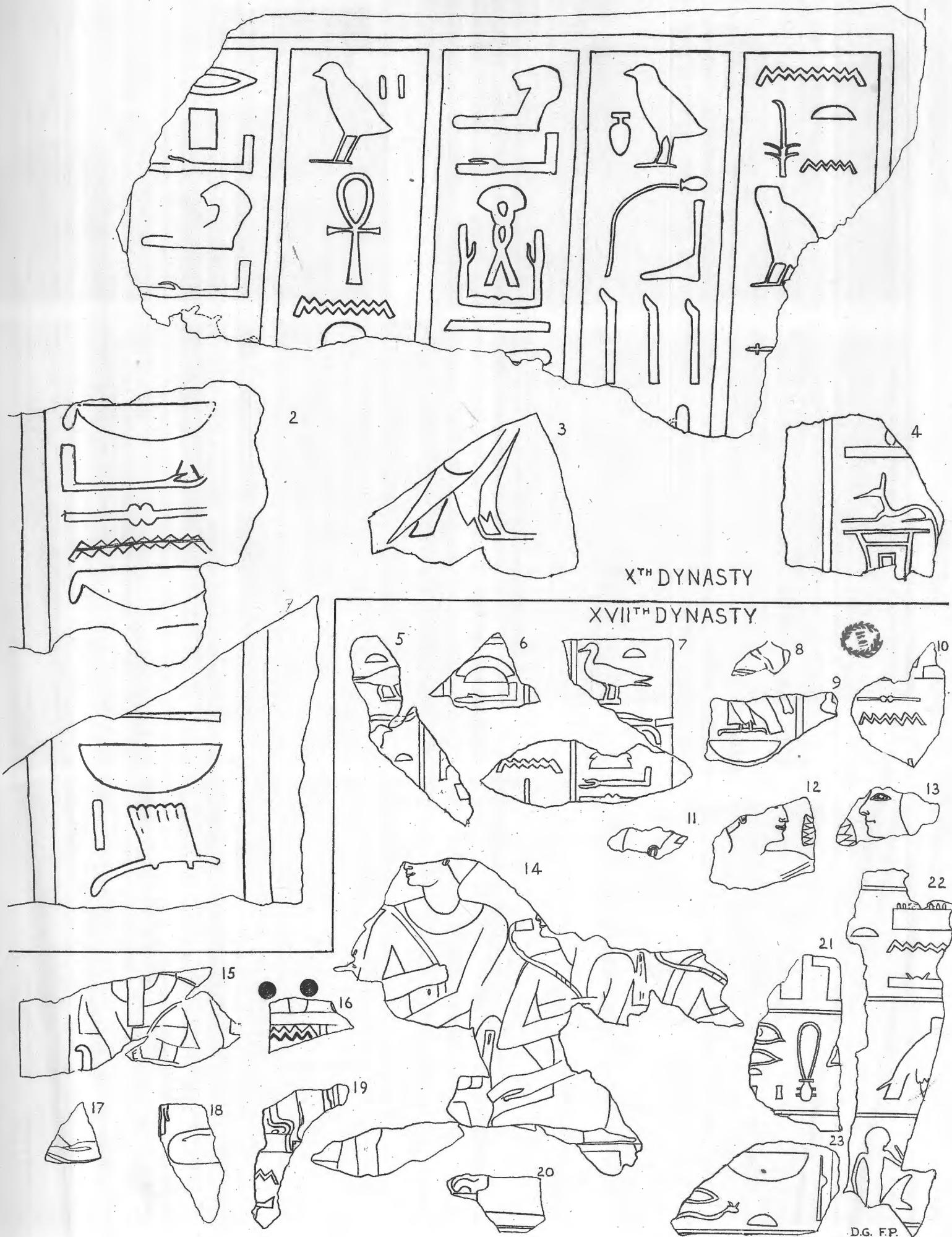
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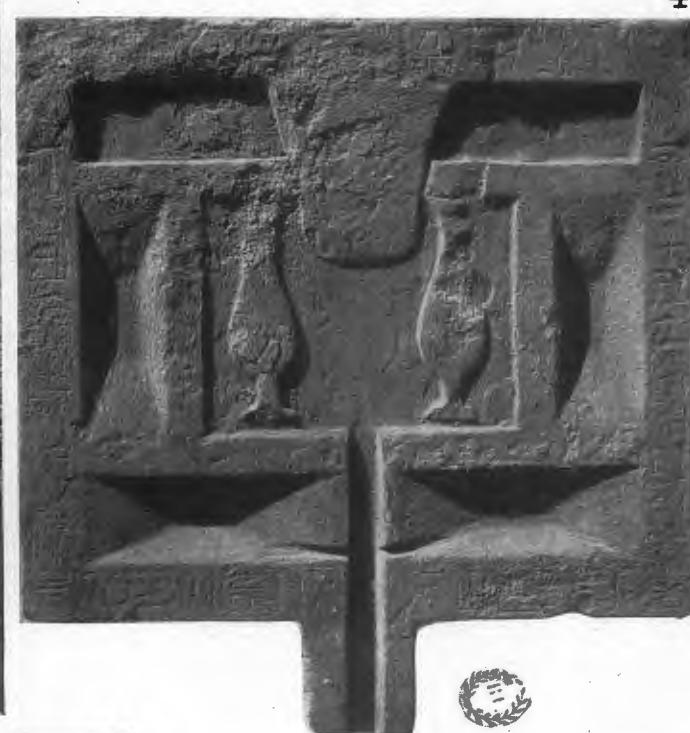
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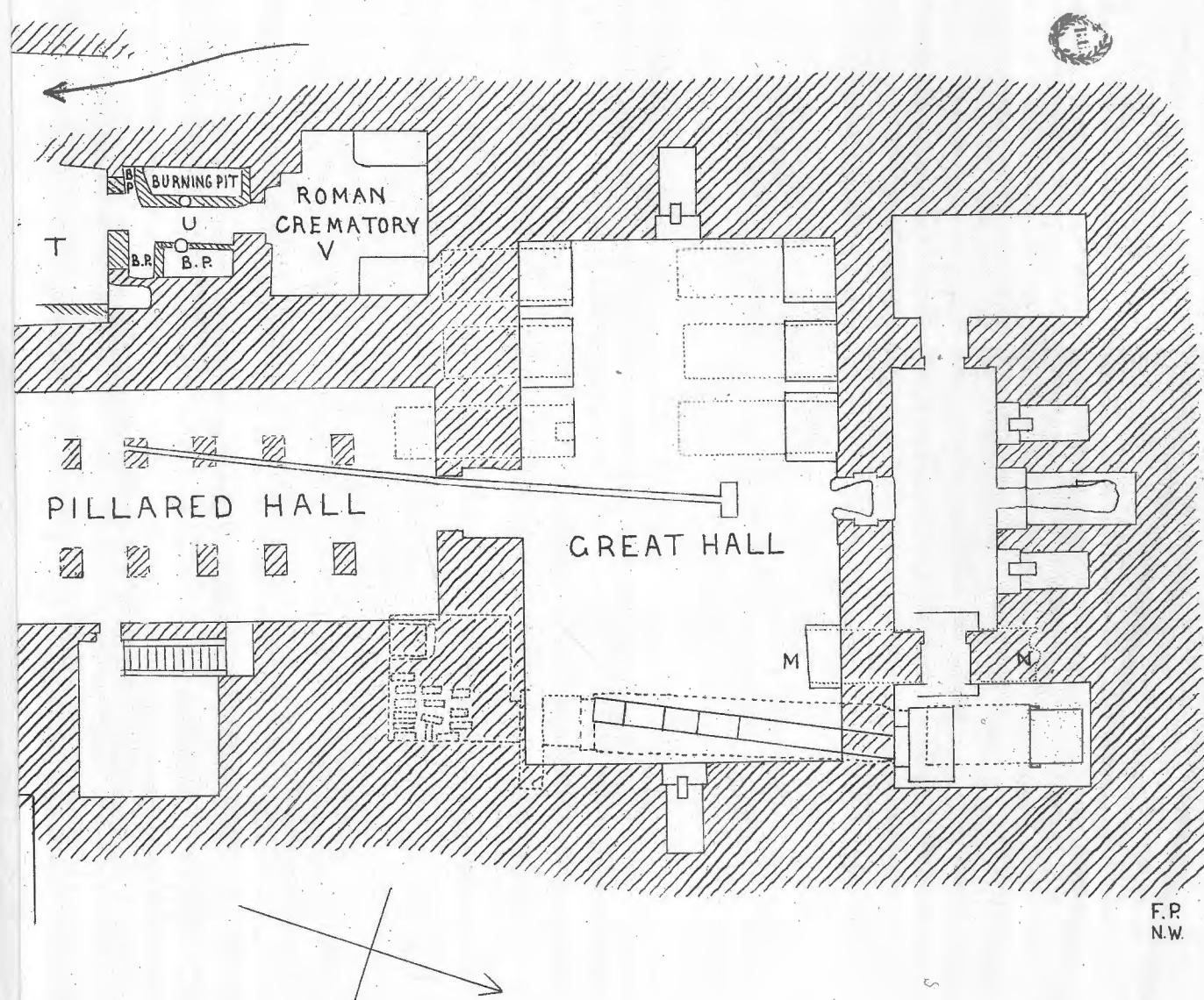
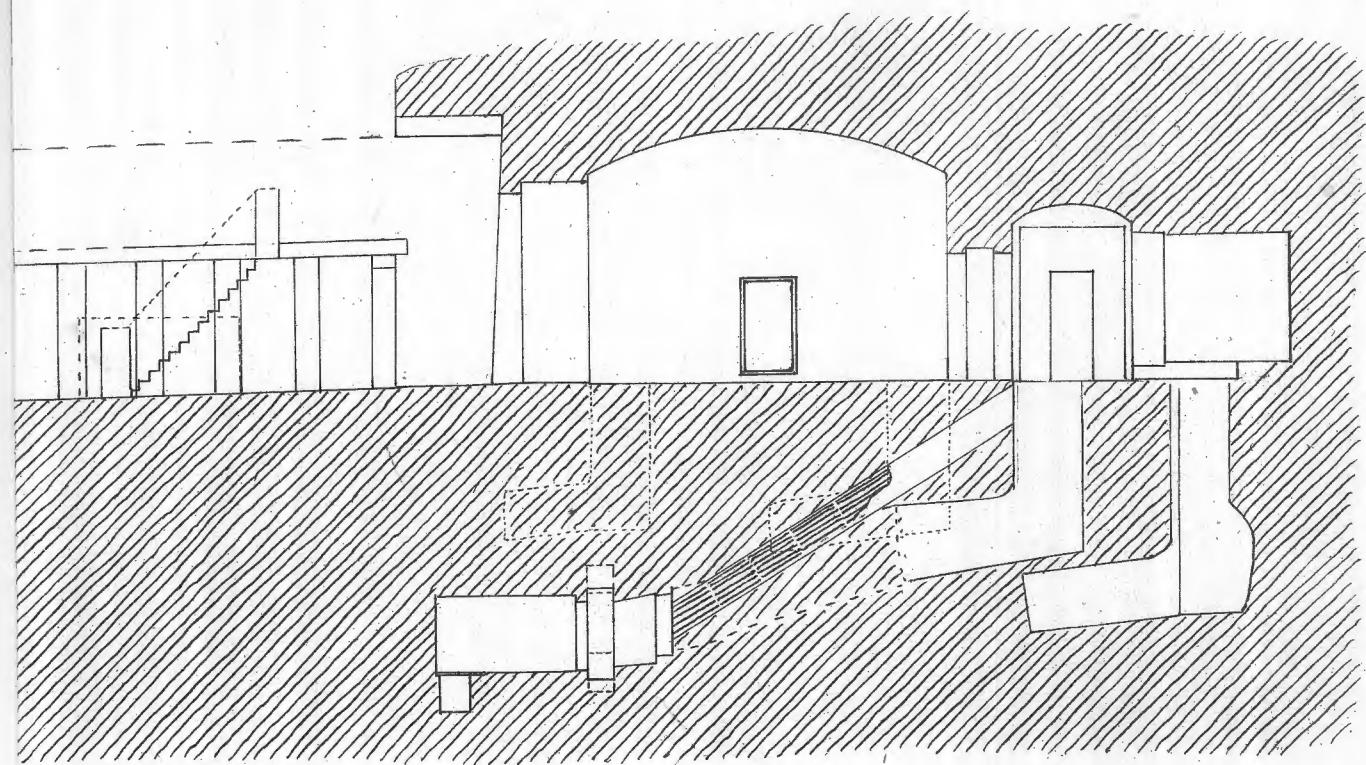




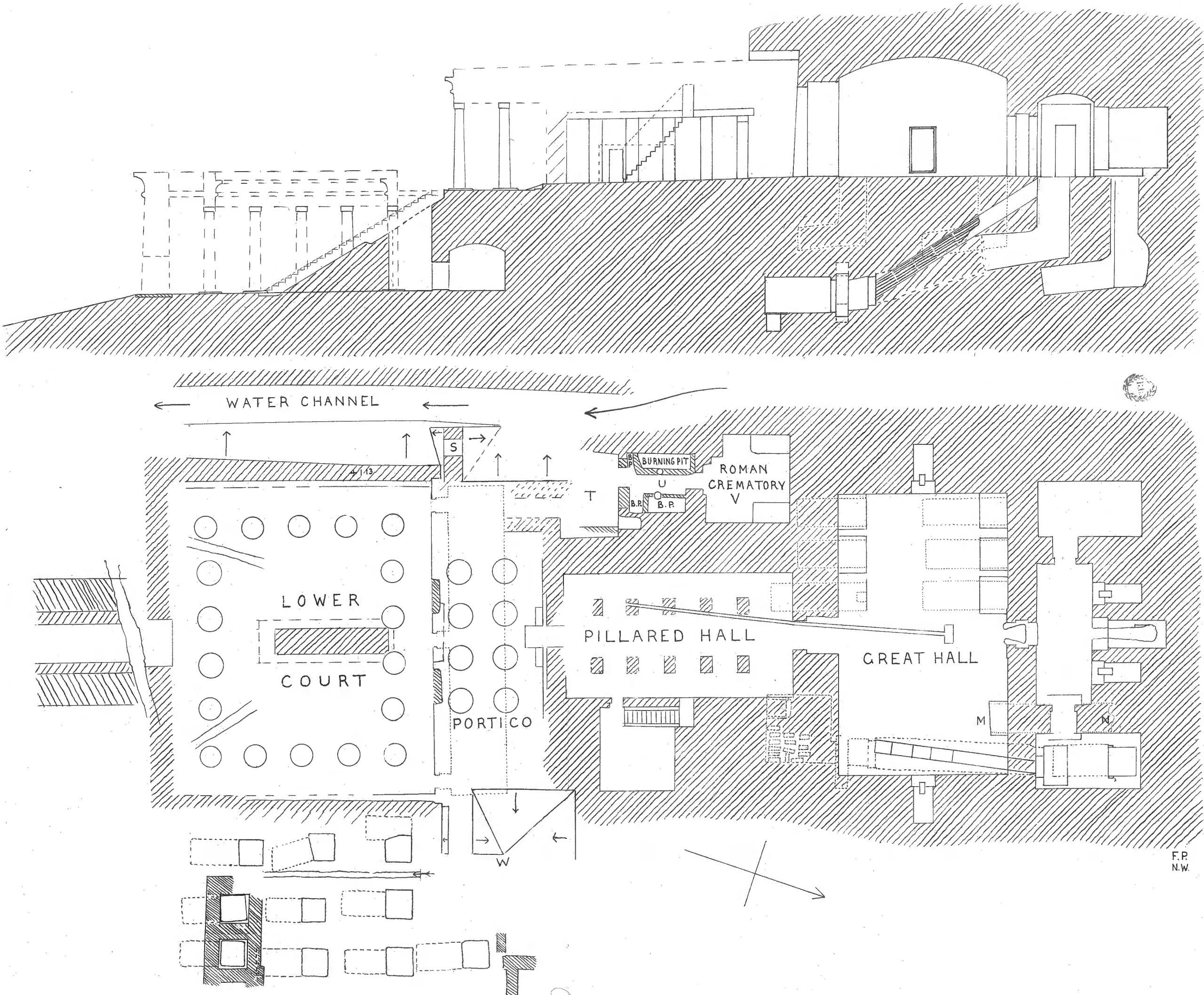






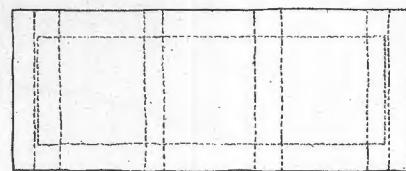
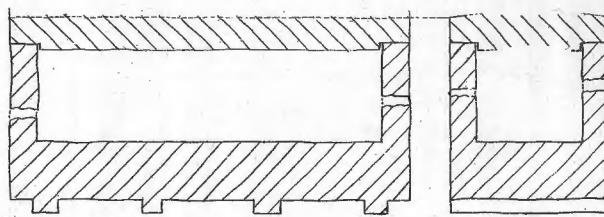


VARIATION OF WALL FACES
N.E. E.S. S.W. W.N.



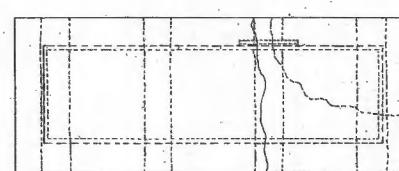
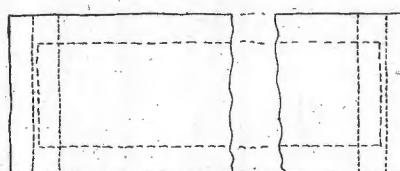
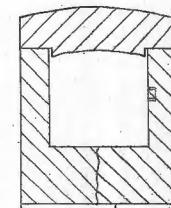
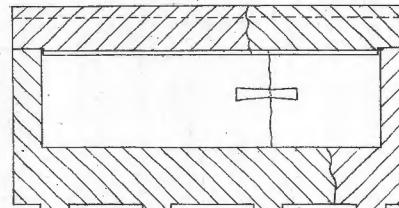
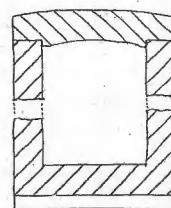
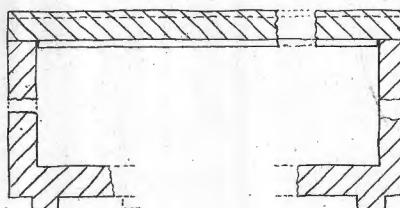






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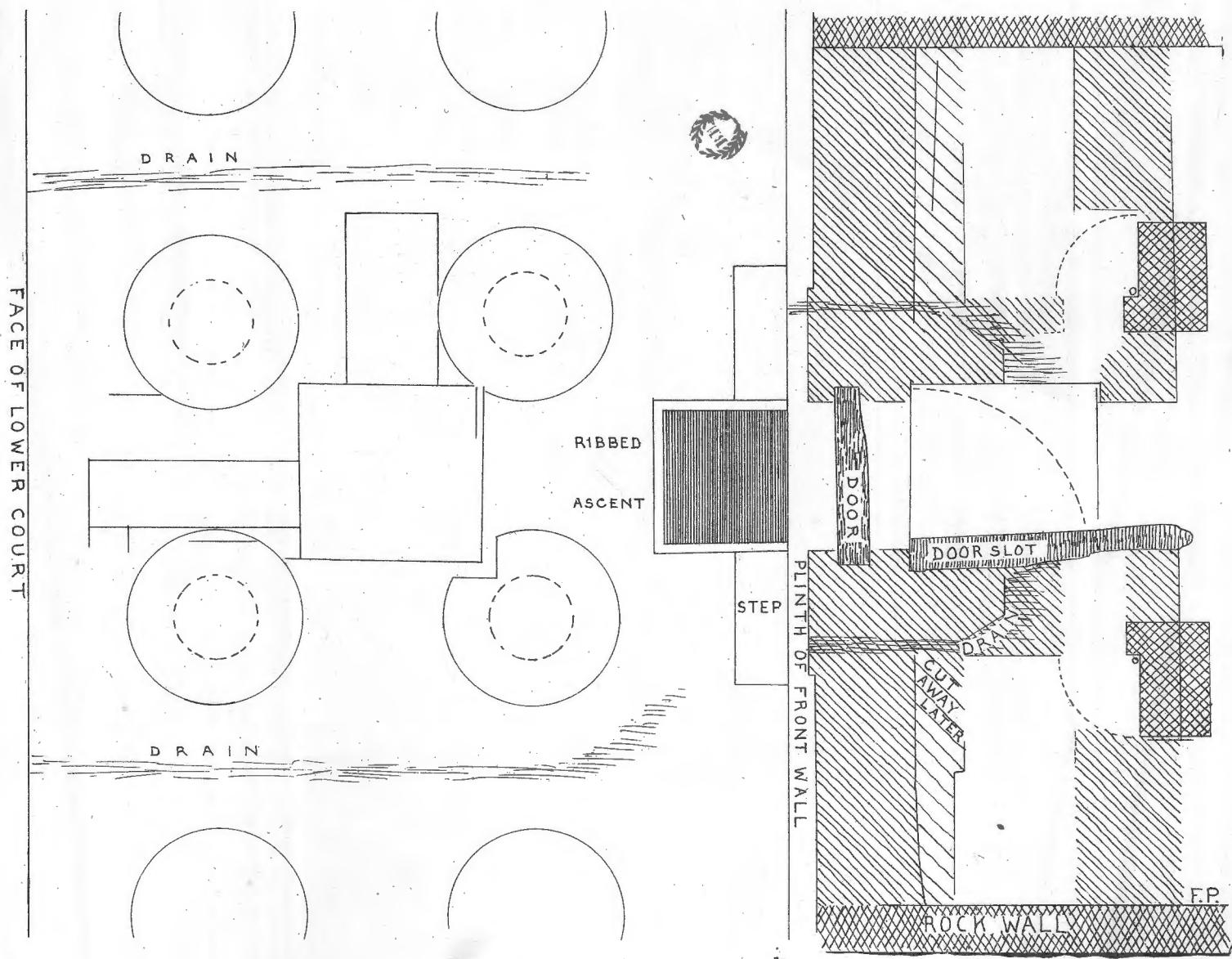
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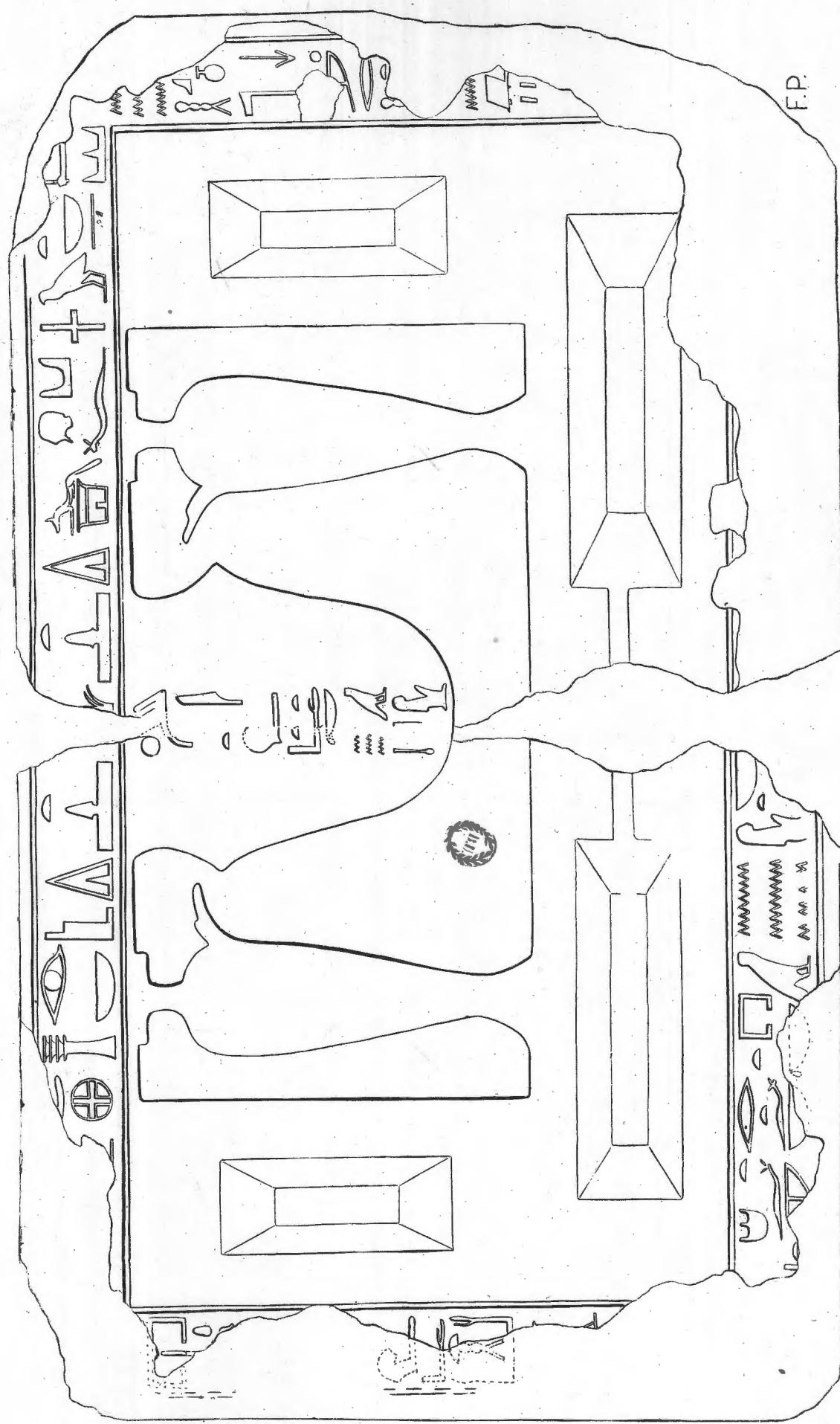


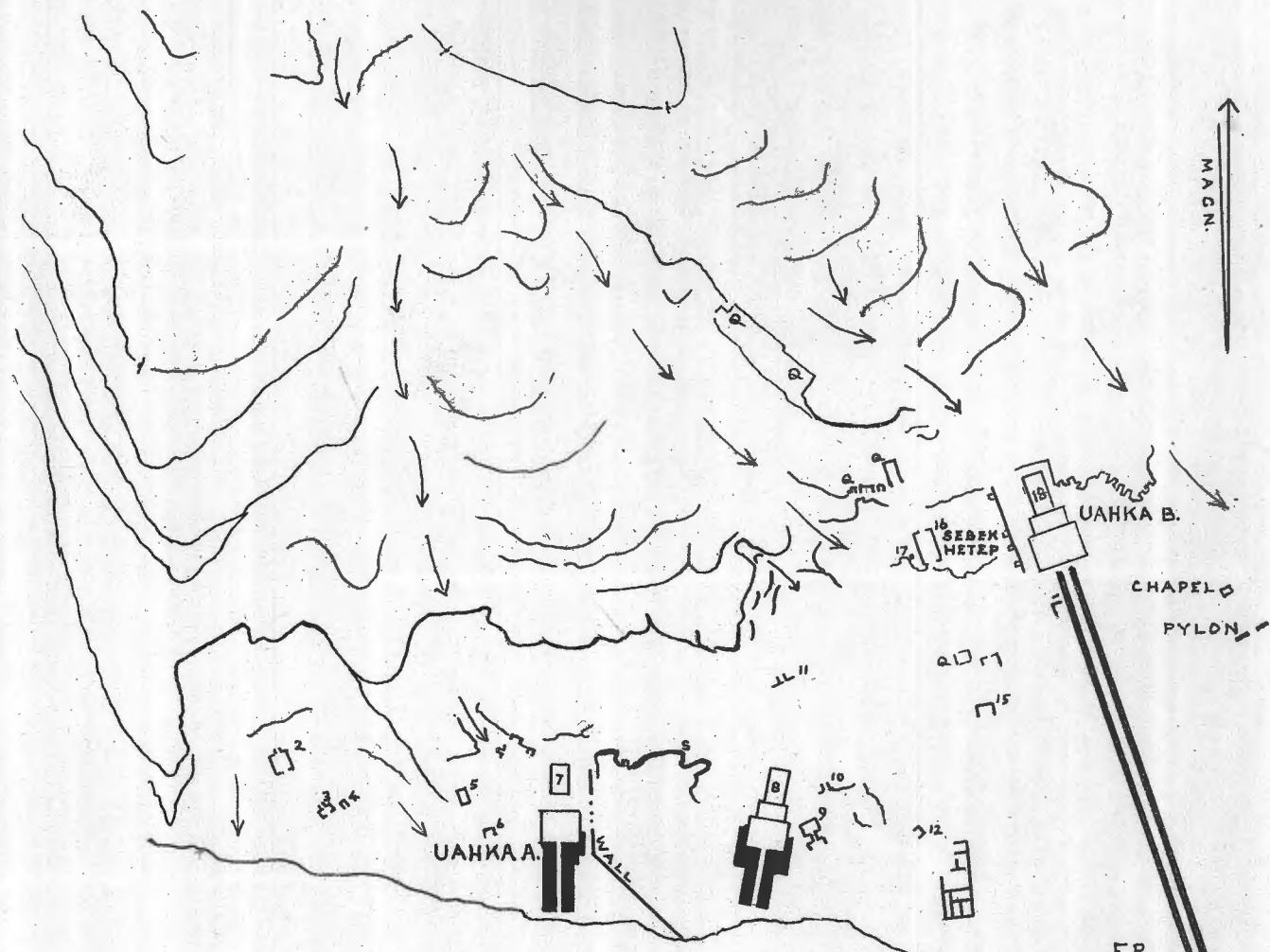
No.18 UAHKA B.

No.16 SEBEKHETEP. N.W.

PORTICO UAHKA B AND ENTRANCE.





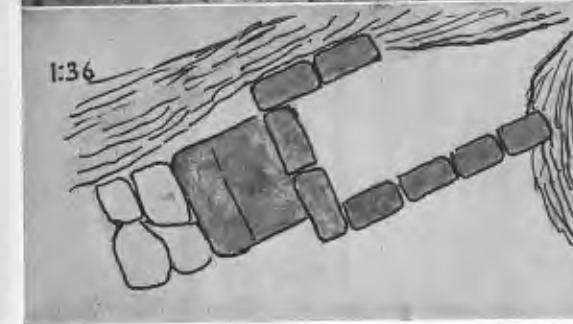


CEILING PATTERNS OF No.18 UAHKA B.

1	1	12	2	1'	6	9	1	12		10
1	3	10	8	1	2	6	1'		10?	
∞	1	12	10	5		2	1	8?		
5-	9'	2	1		7	8	5'	2		
2	1	7	5-	12						
12	9	∞	4				12			
5	7	12	1			1'	5'	6		
9	10	6	10		7	2	1	1'	9?	
2?	5'	1'	9			10	8	12		
9	5	7			∞	6	5?	6	100	

N.W.

9.
PORTICO





1



2

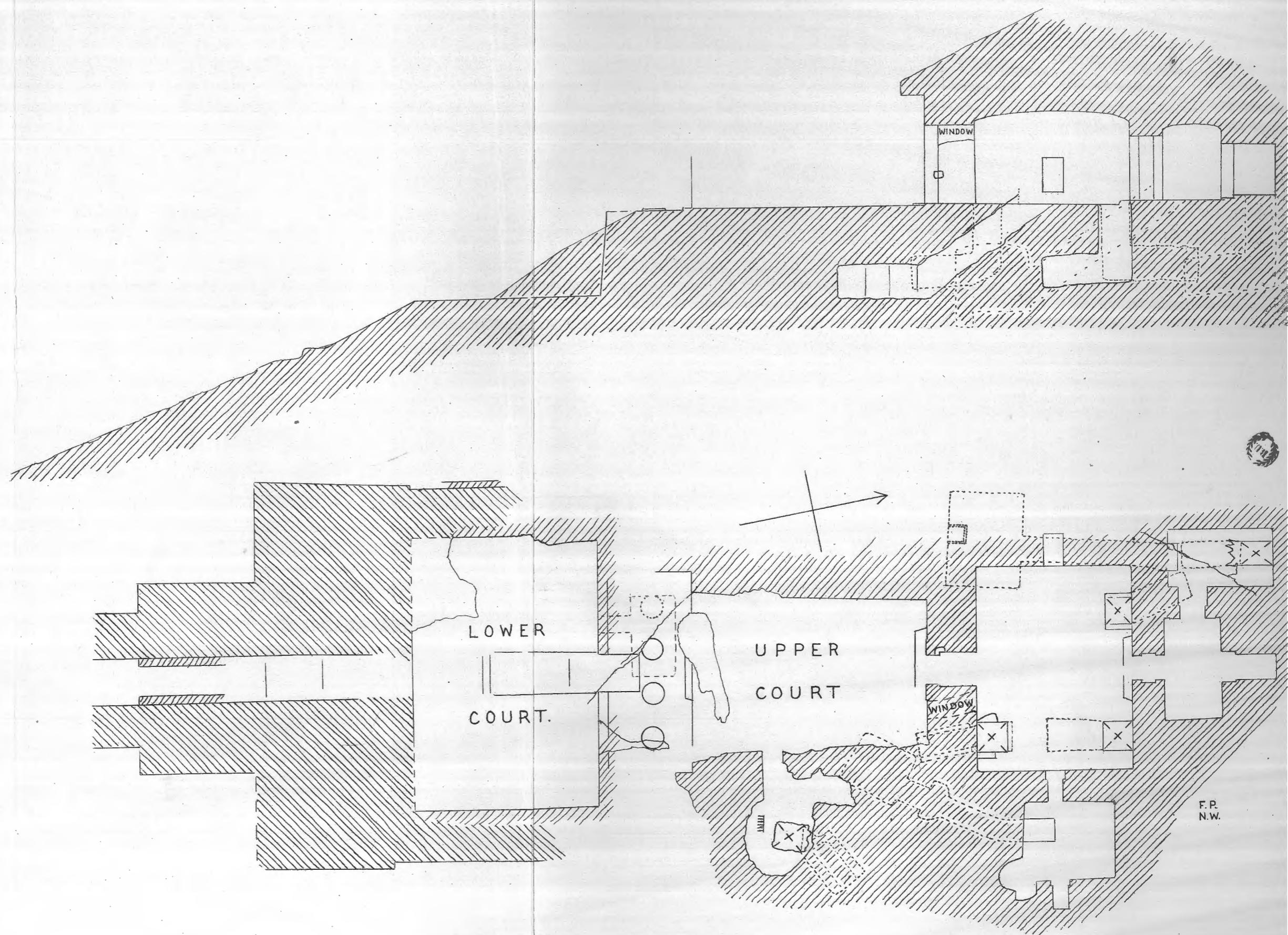


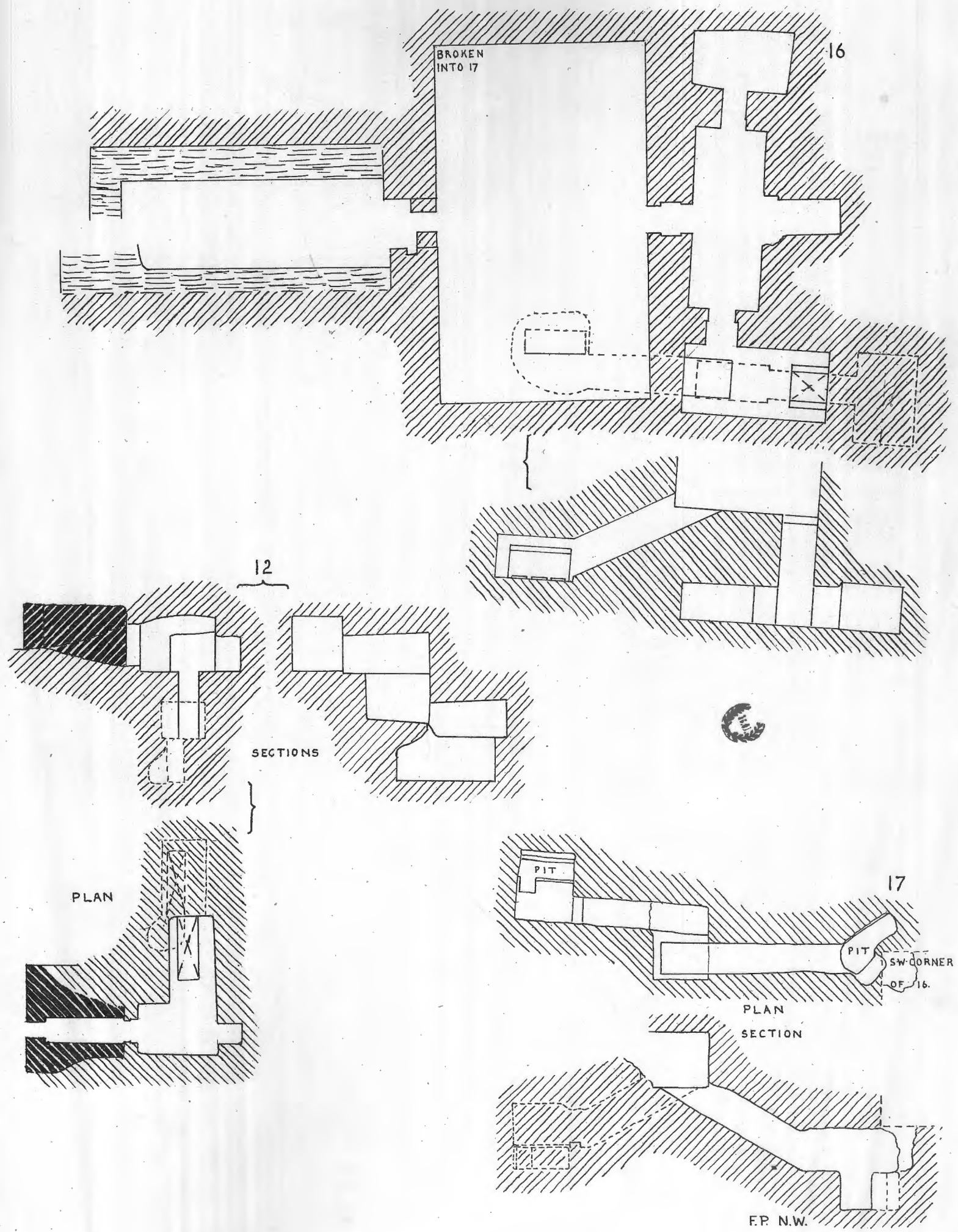
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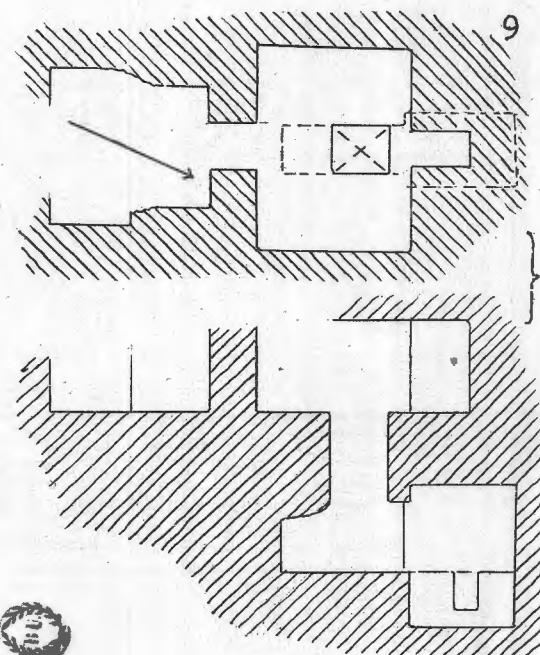
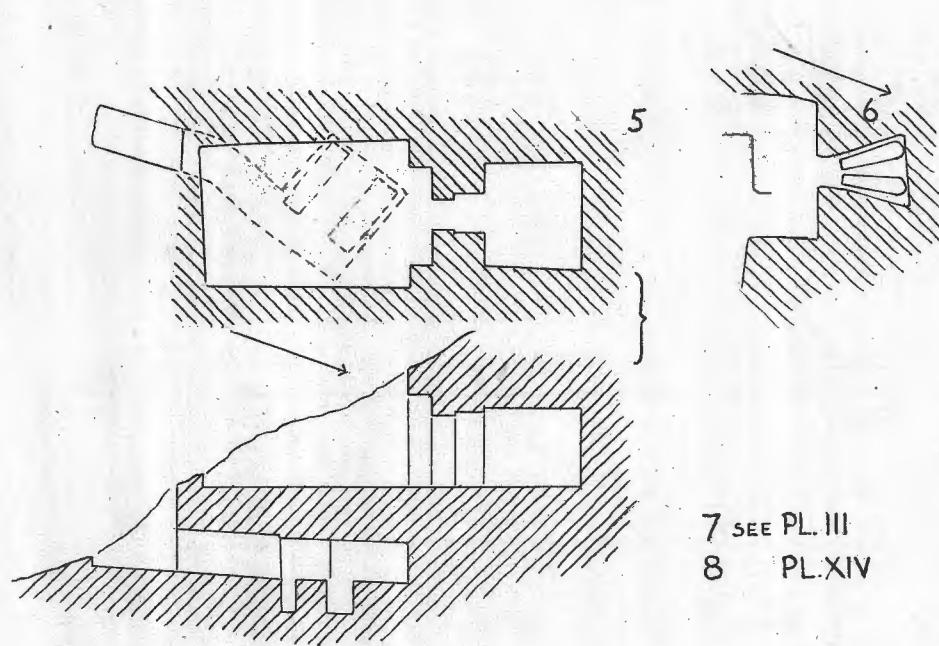
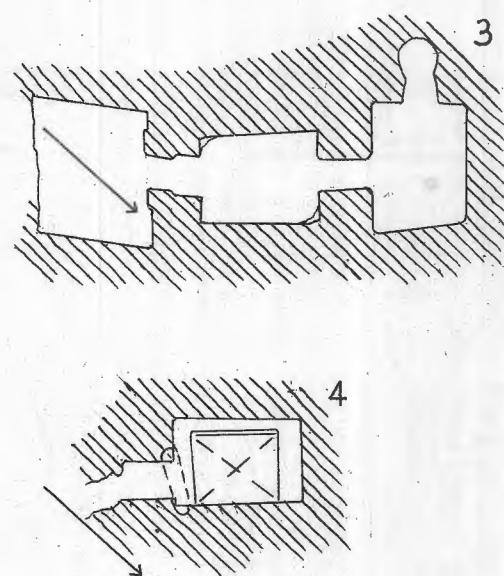
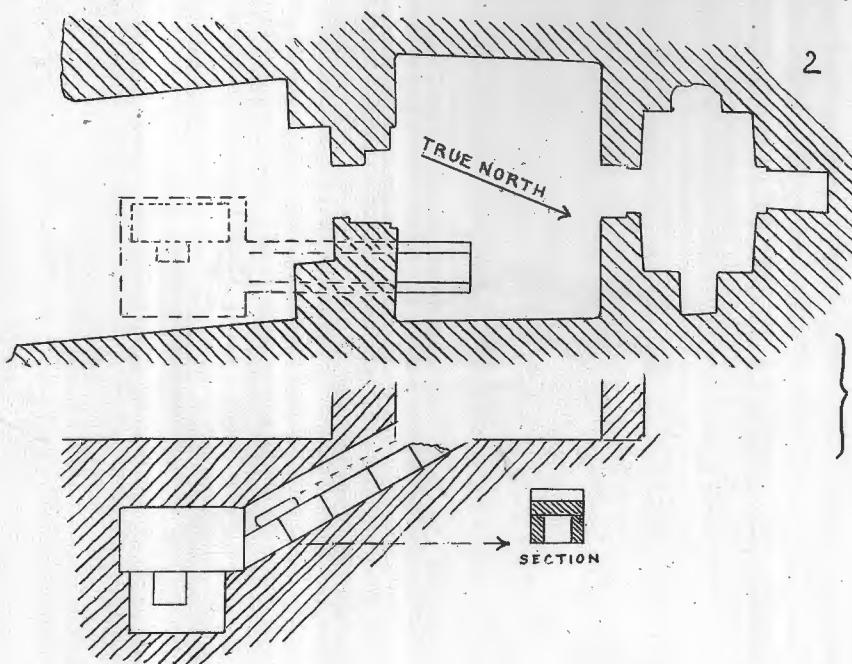


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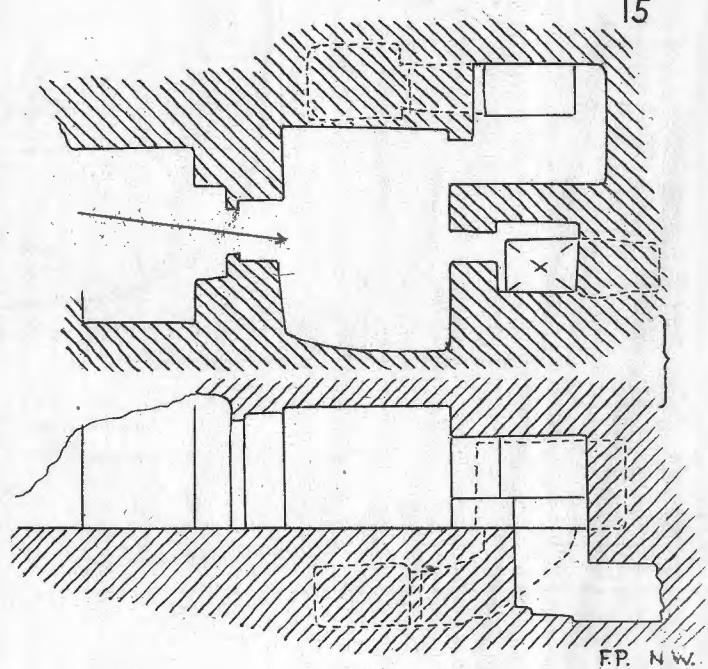
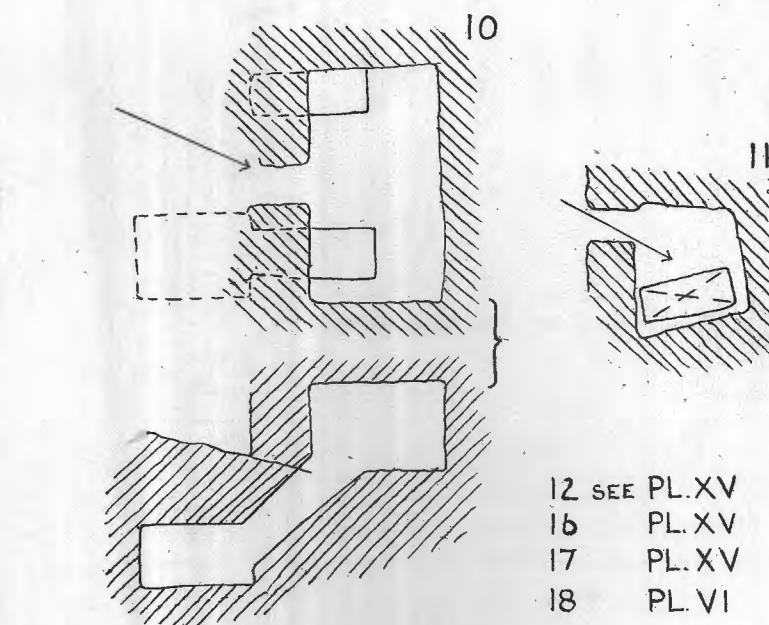






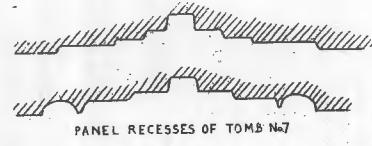
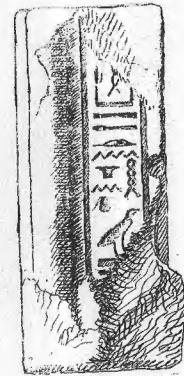


7 SEE PL. III
8 PL. XIV

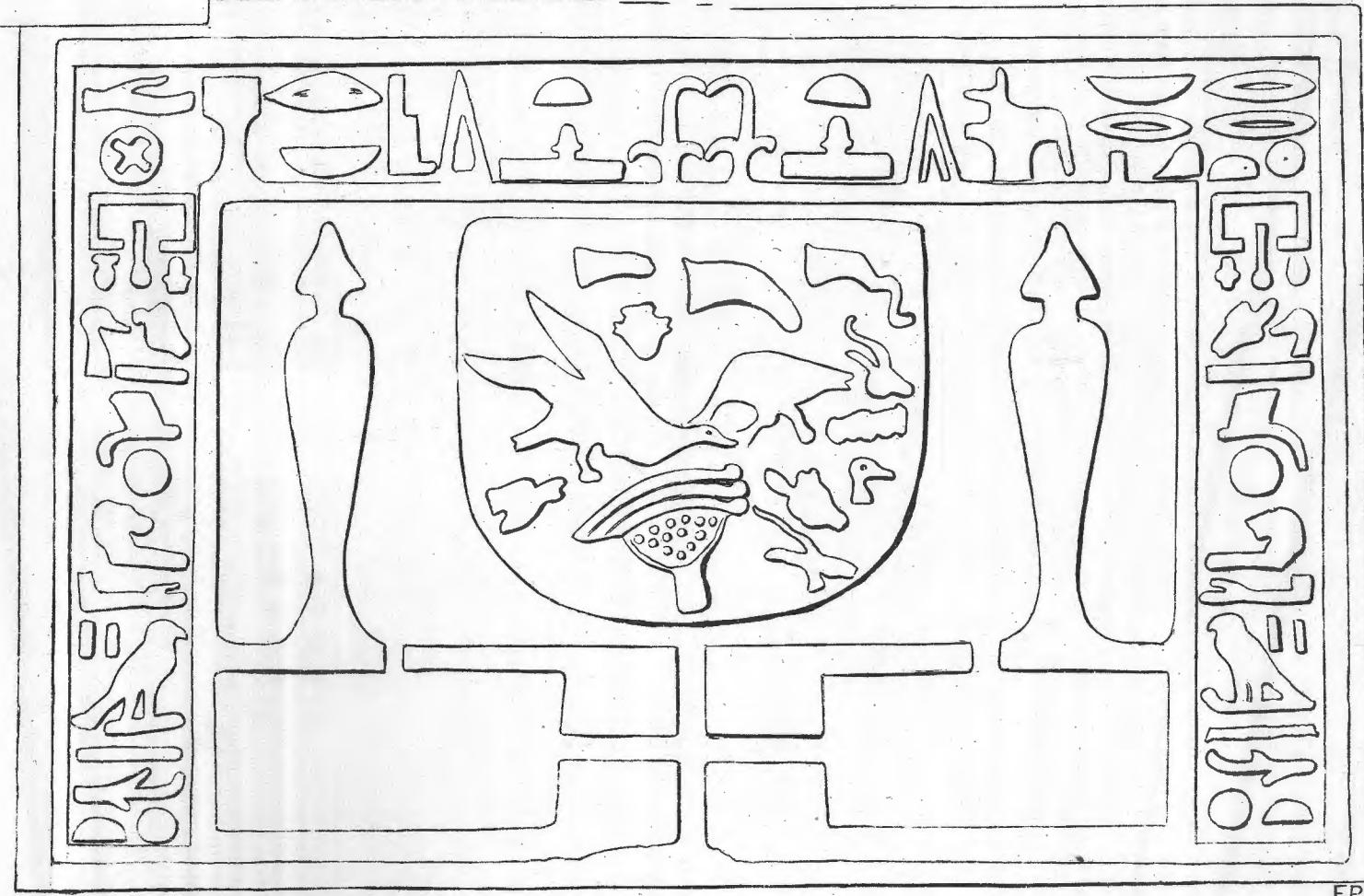
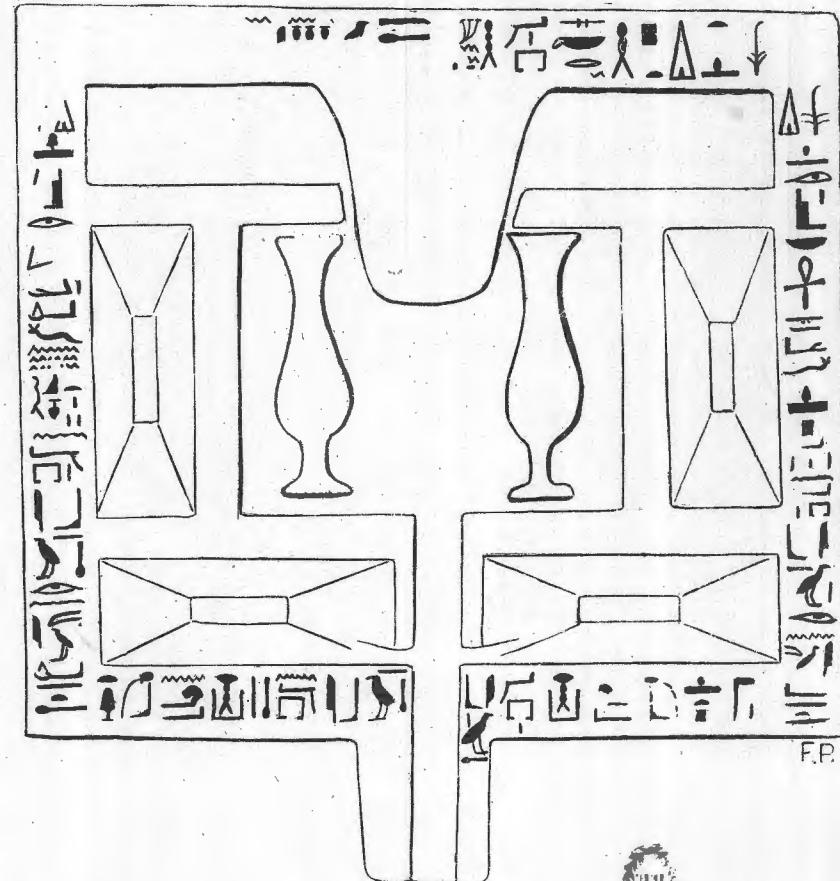
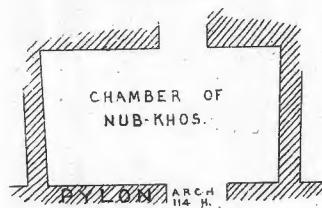
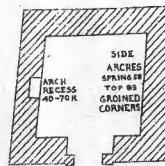


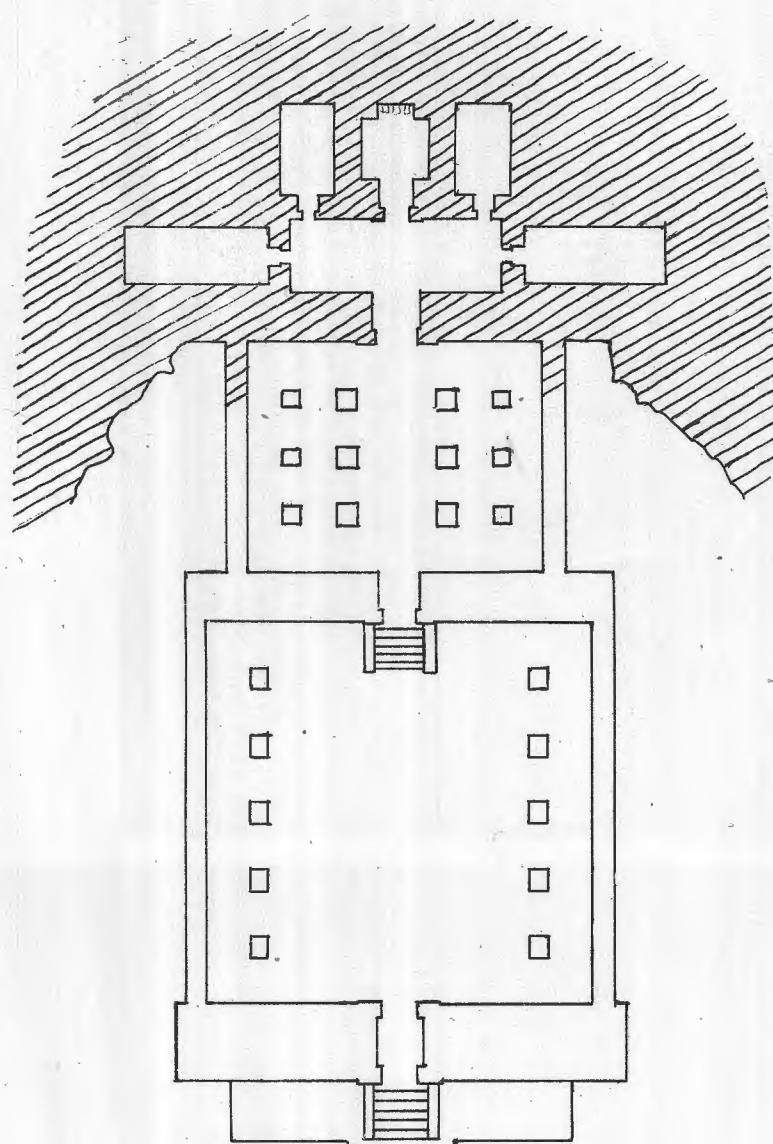
12 SEE PL. XV
16 PL. XV
17 PL. XV
18 PL. VI

F.P. N.W.

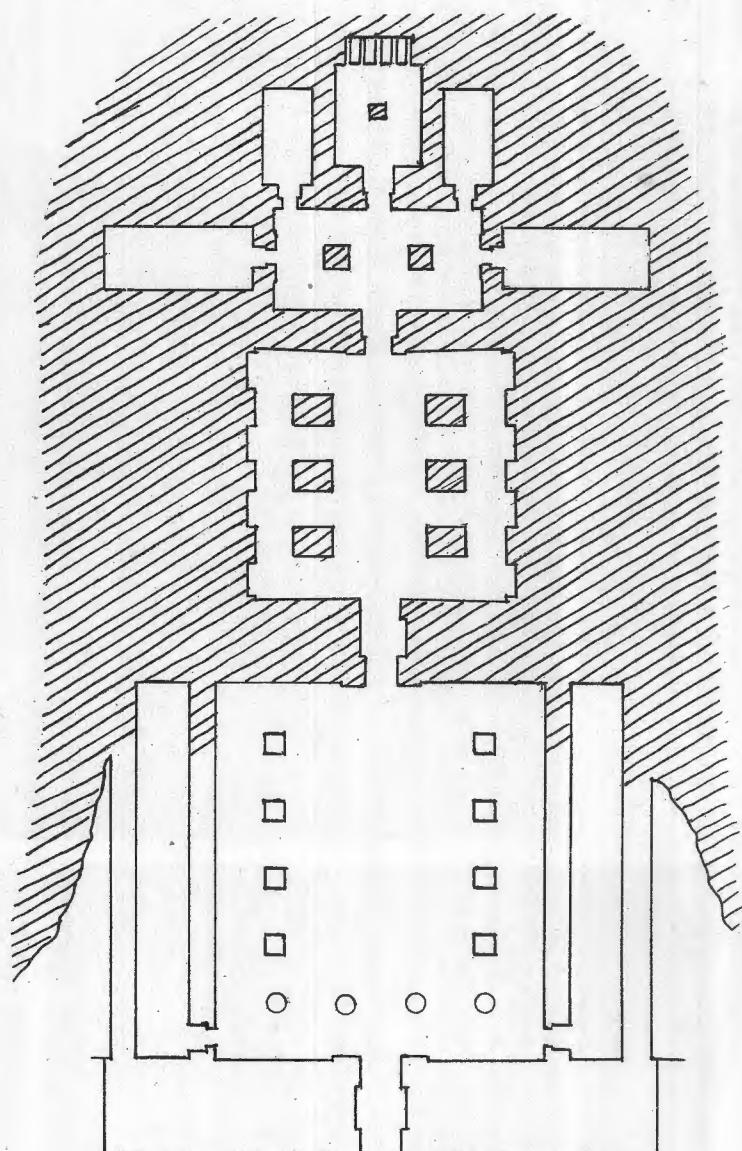


K200 ROMAN TOMB

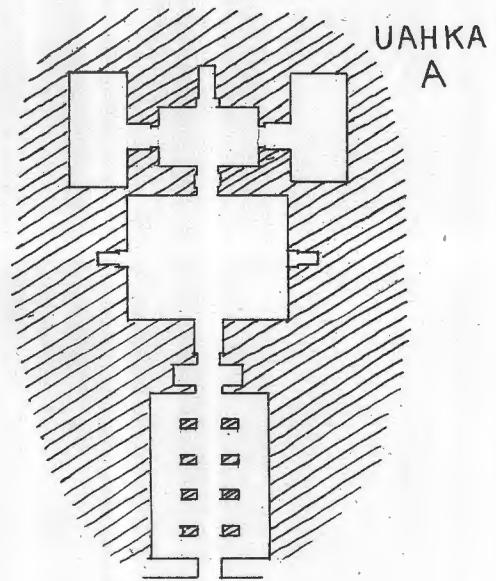
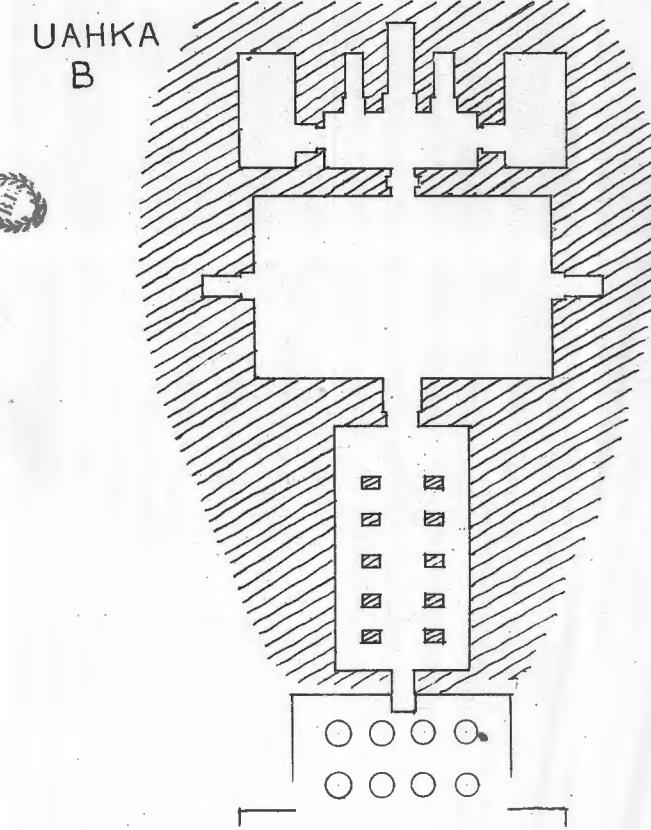


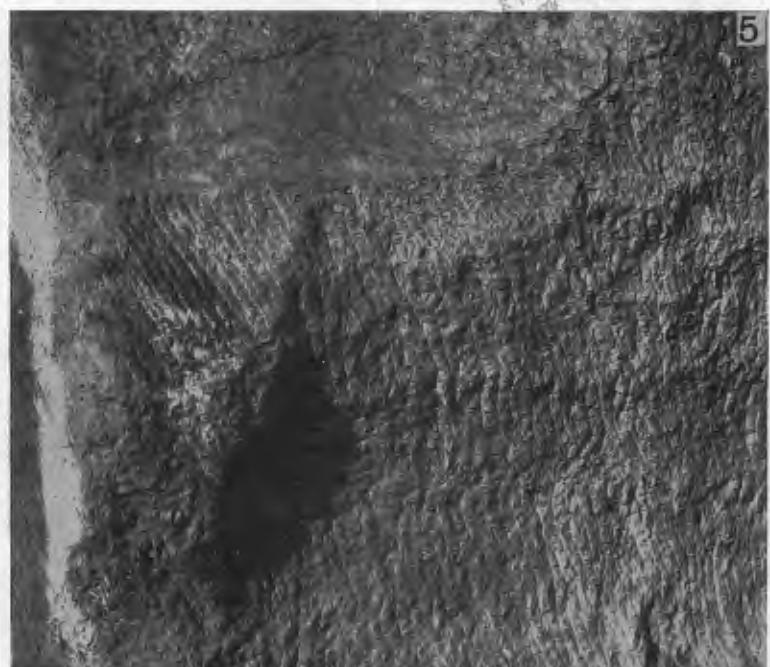


ES SEBUA



GERF HUSEYN

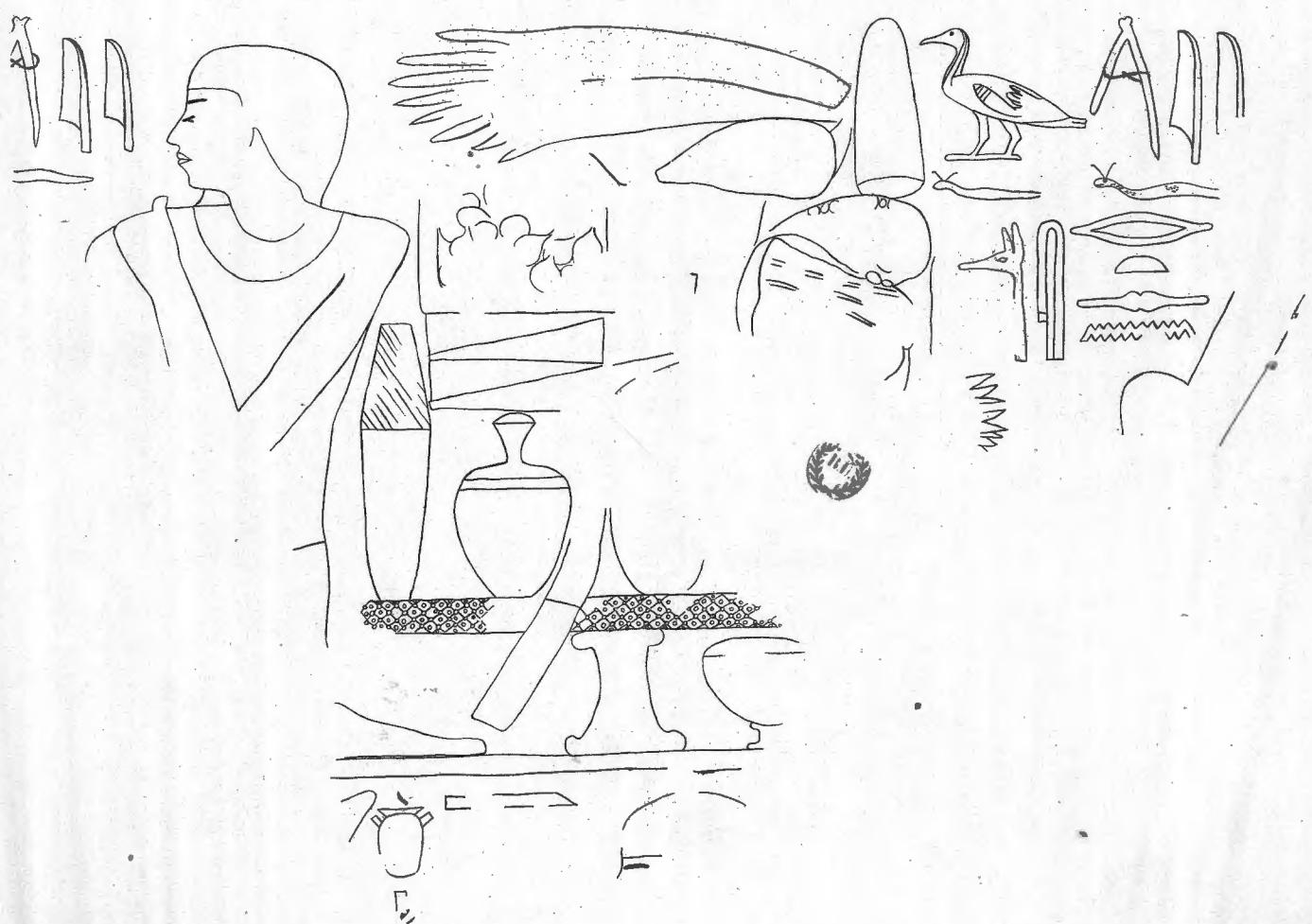
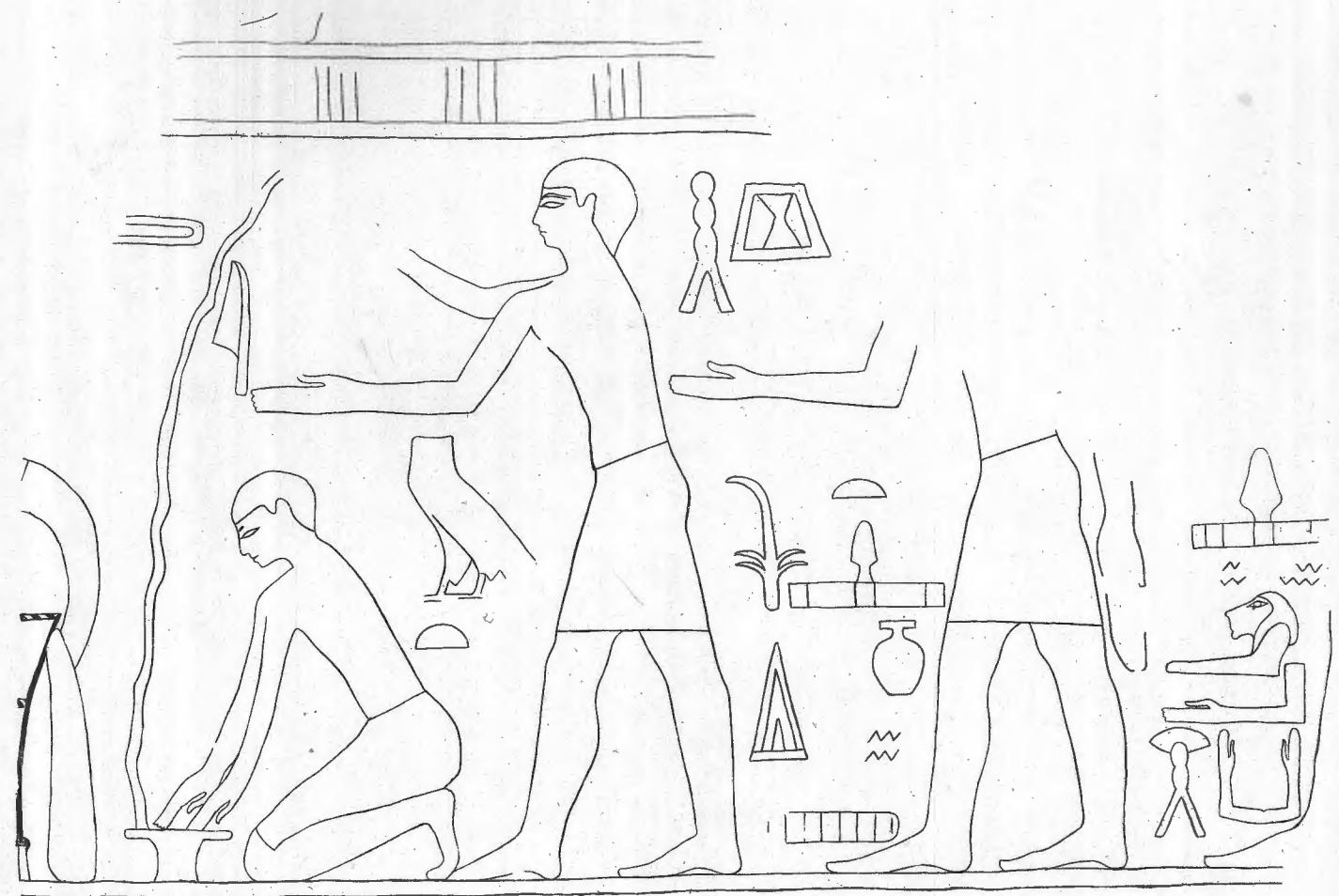
UAHKA
AUAHKA
B

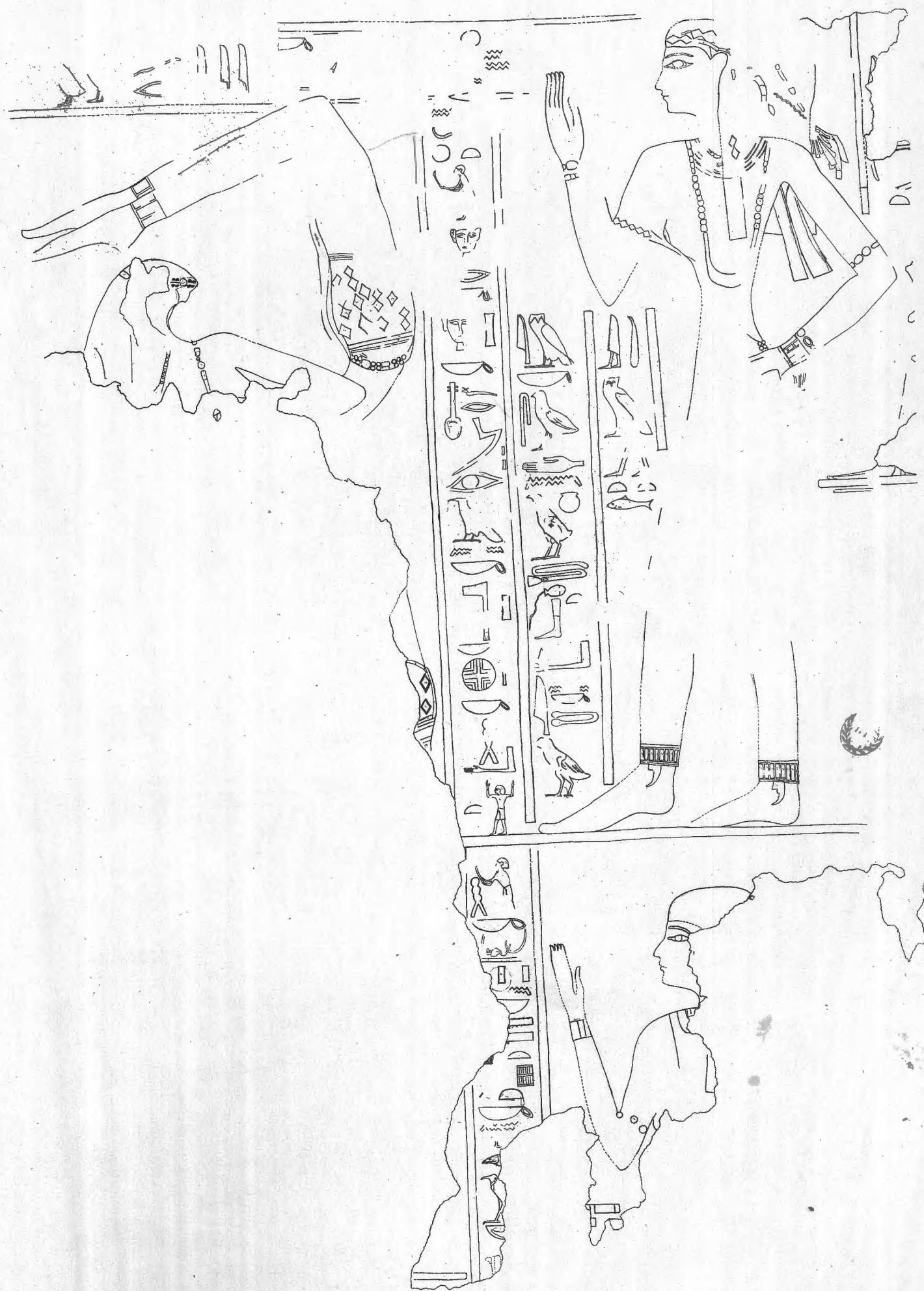


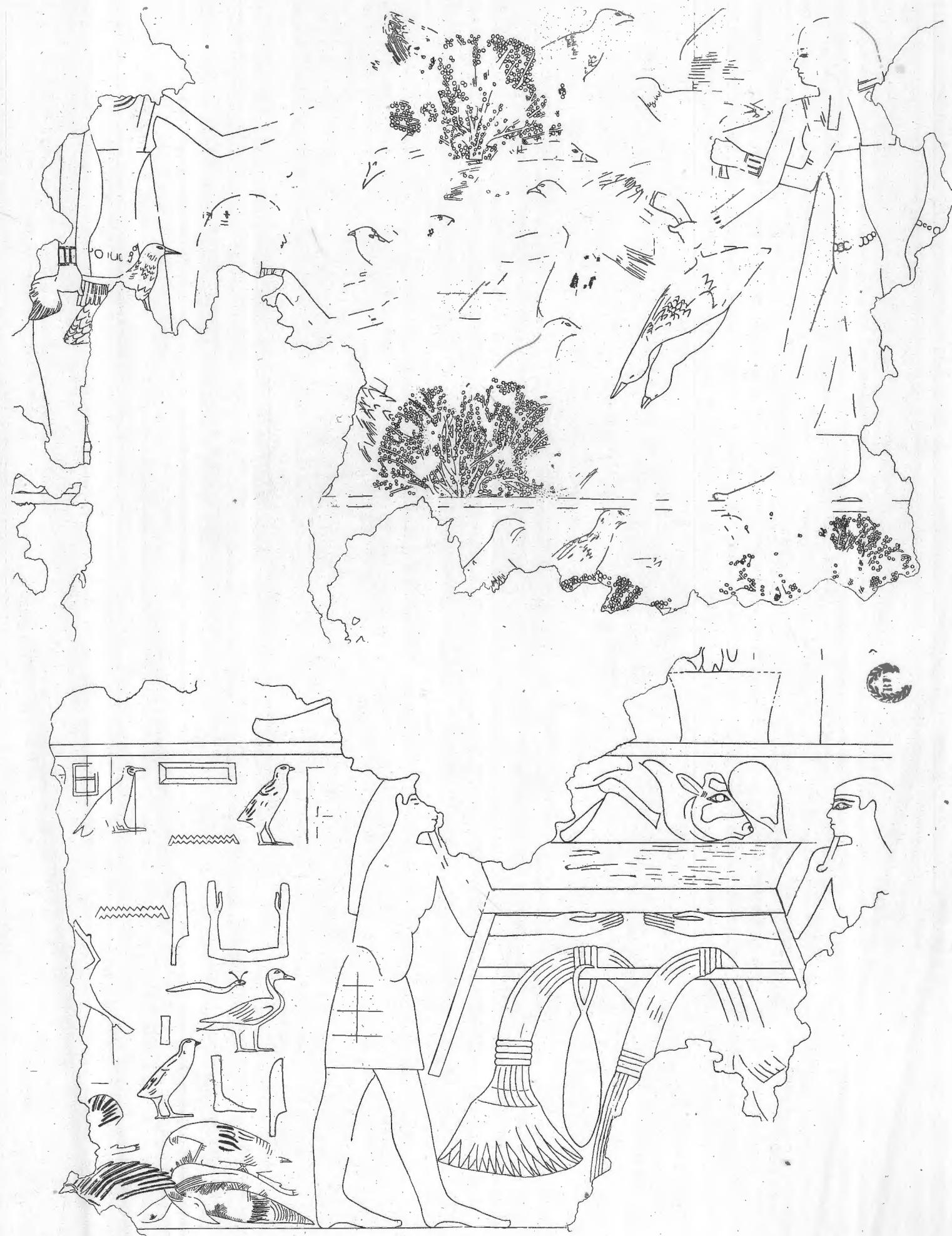


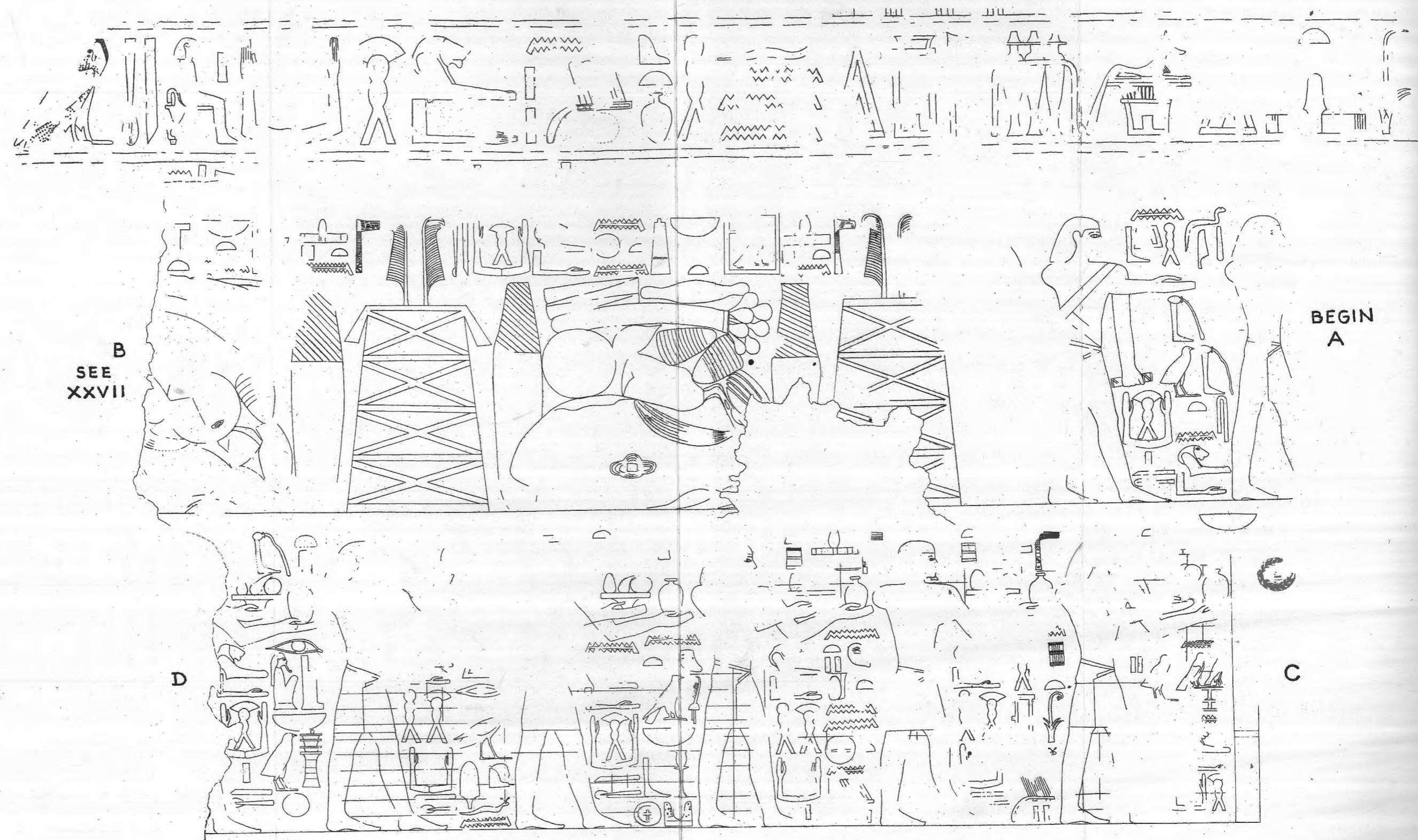


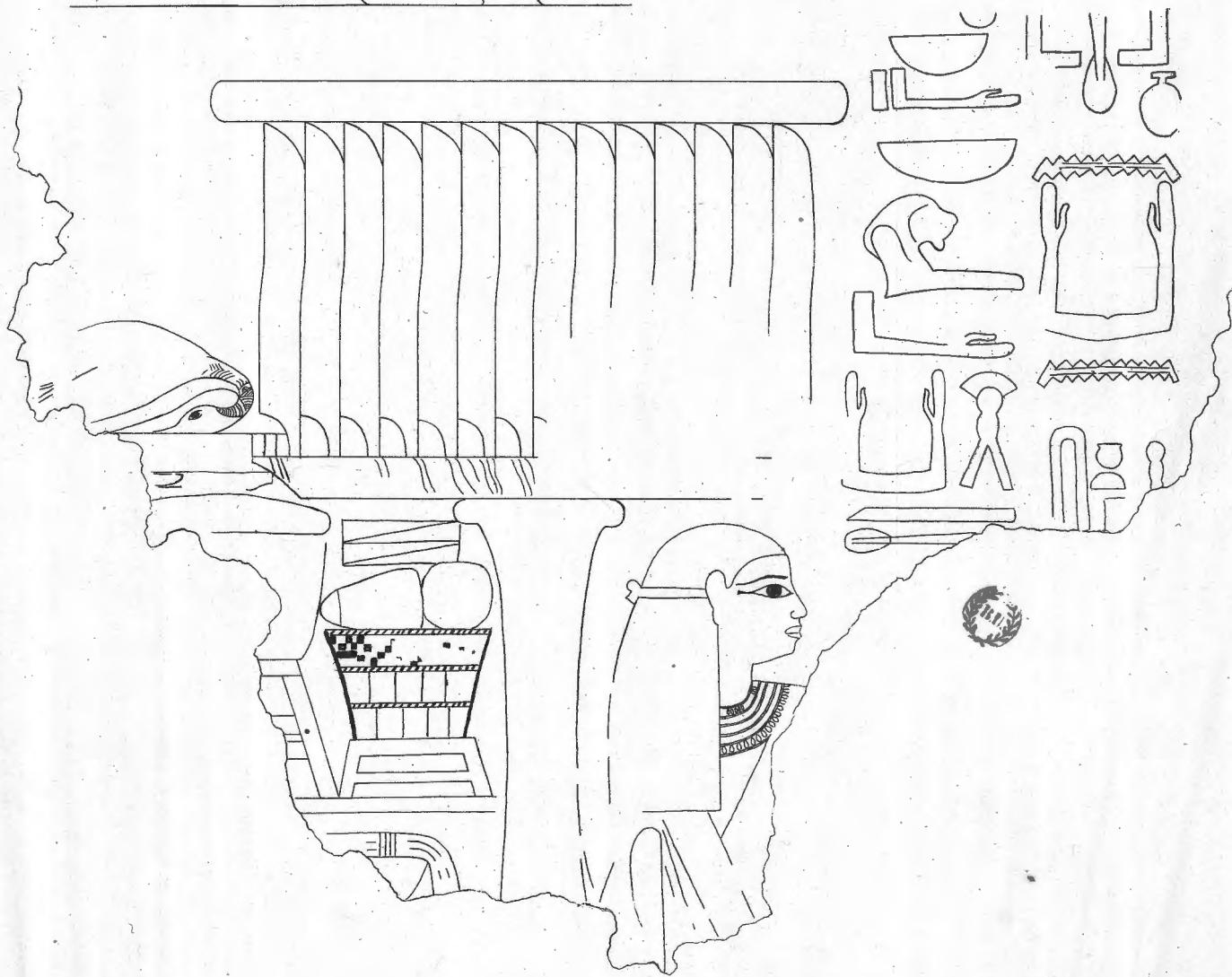
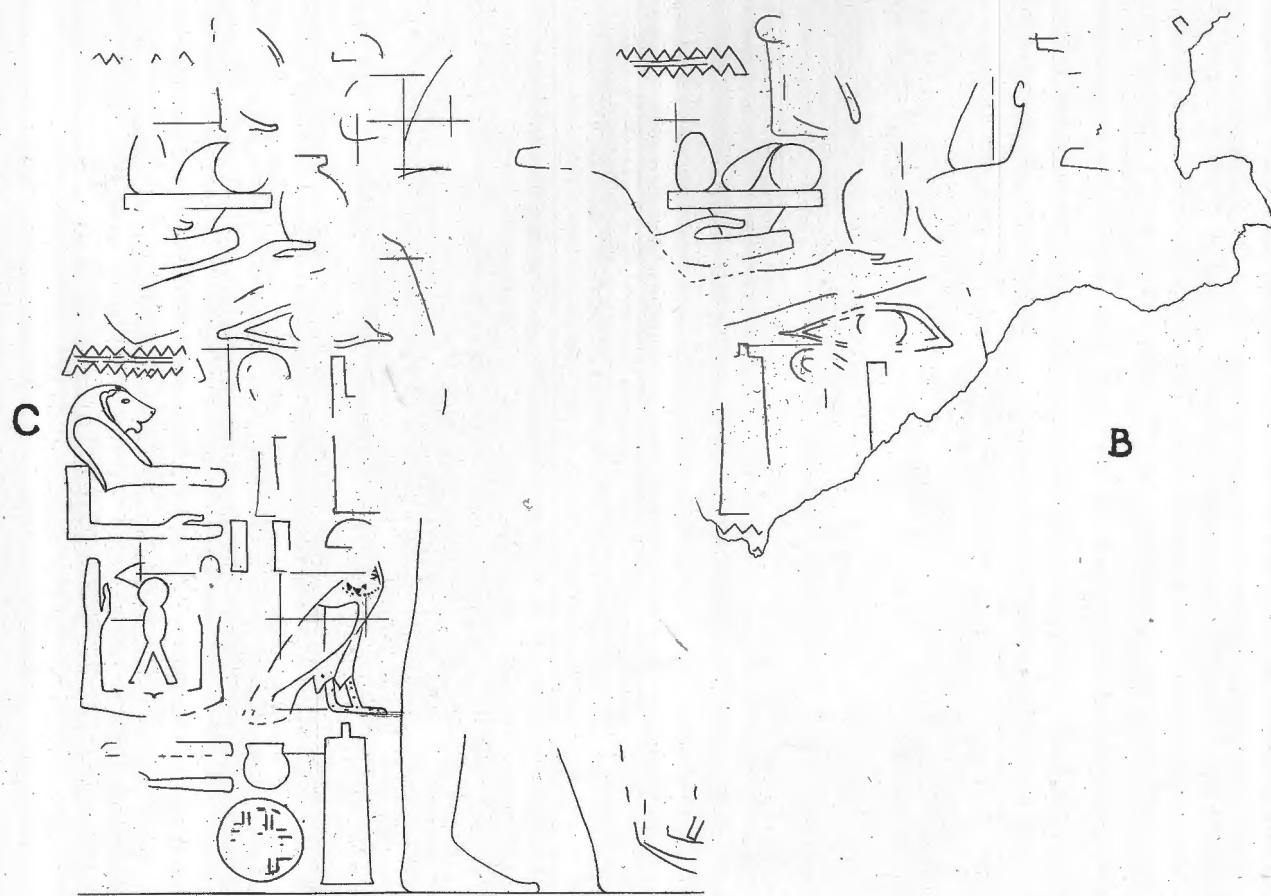


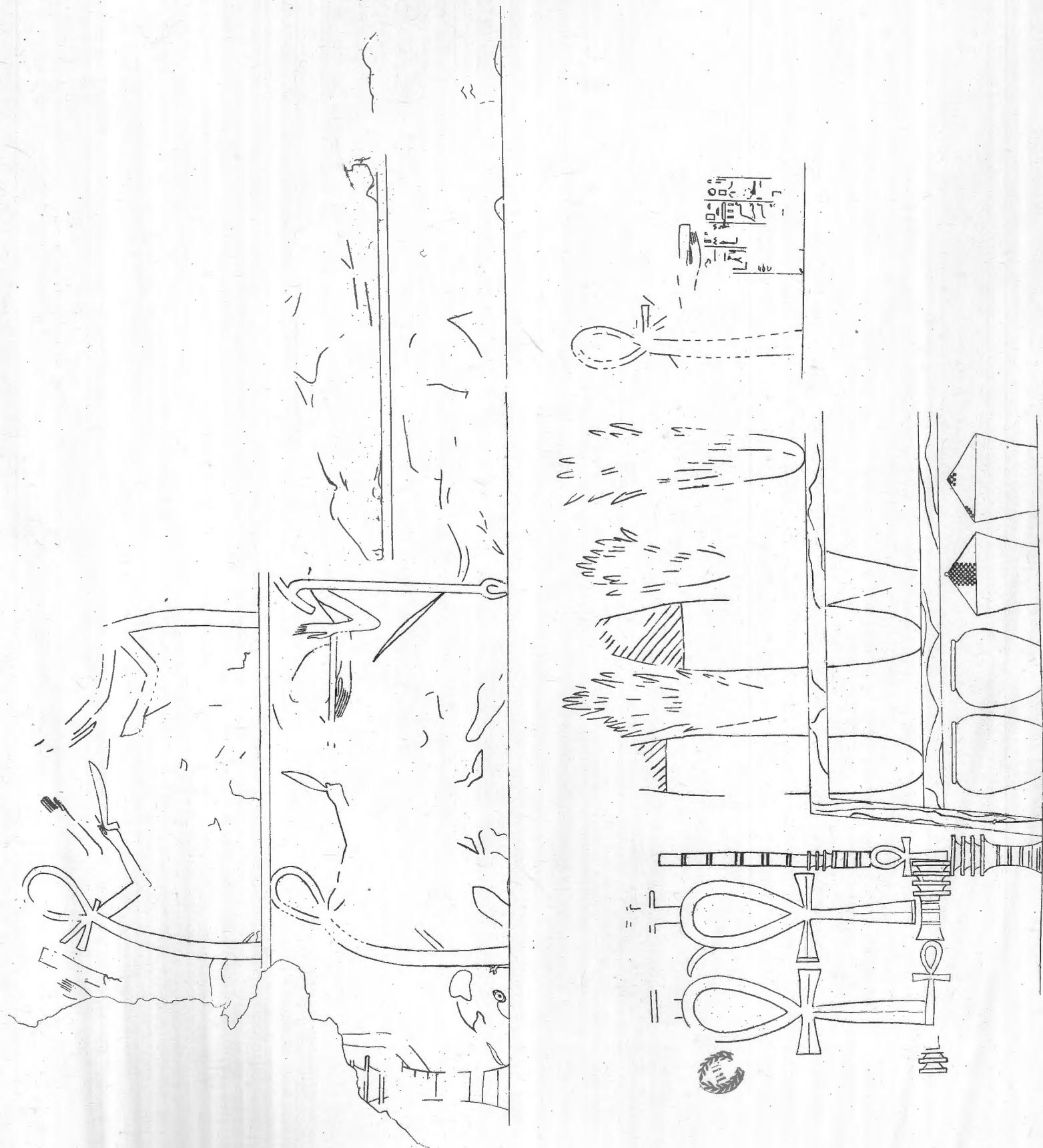












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